POLICIES TO PROMOTE SUSTAINABLE DEVELOPMENT OF THE DAIRY INDUSTRY IN TRINIDAD AND TOBAGO

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> *Give us the right atmosphere an we shall sow towns and cities in place of theories. We will show you how to achieve in peace a fuller independence than can be won on the battlefield or across the negotiating table. Without sacrificing your ancient traditions, we will carry forward the historical revolution in the way people everywhere long for ...* (Eugene R. Black, former president of the World Bank).

This assertion is pertinent to the farming sector of Trinidad and Tobago.

Sustainable development does not imply absolute limits to growth; it is a new concept of economic growth. It is defined as paths of progress which meets the needs and aspirations of the present generation, without compromising the ability of future generations to meet their needs. It does not imply a fixed state. It is a process of change , in which economic and fiscal policies, trade and foreign policies, energy, agricultural and industrial policies all aim to induce development paths that are economically, socially and ecologically sustainable. *[Omoro, B. et al, 1987]*. This paper focuses on the dairy industry in Trinidad and Tobago with emphasis on local milk production and policies to promote sustainable development the industry.

Since 1956, policies of the Government of Trinidad and Tobago (GOTT) for agricultural development have tended to be *ad hoc* and aimed at attaining the following short and medium term goals:

(a) to increase domestic food production in order to reduce the food import bill;
(b) to ensure adequate levels of food supply;
(c) to secure minimum nutritional targets;
(d) to raise agricultural production and incomes so as to lay the foundation of a solid, stable agricultural sector;
(e) to create employment;
(f) the development of non-traditional exports;
(g) the promotion of proper land use;
(h) the modernization and diversification of agriculture *[Gov't. of Trinidad & Tobago, 1988]*.

The above strategies, proposed to solve the problems diagnosed by and to attain these development objectives are fairly varied. Also, some of these policies offer contradictory incentives to consumers and producers which lead to conflicting trade, food and agricultural policies.

Kamara (1992) asserts that a major factor which has inhibited success in milk production in Trinidad and Tobago was government policies for the sub-sector. The general claim was that government has often intervened on behalf of consumer interest to the detriment of producer price incentives. The situation, therefore, with respect to production and consumption has been the case where domestic milk production has failed to meet the requirements of processors, thereby preventing the latter from meeting the needs of the domestic market. The country therefore has relied and continue to rely on heavily on cheaper milk imports from countries which may be willing to sell at lower pries or give away milk products "*free of charge*" *[Kamara, 1992]*.

The production of the dairy sector can be described as incongruous (Table 1).

Table 1. Fresh Milk Production and Disposal to Principal Producers in Trinidad and Tobago

Year	Domestic Milk Production (Mn.KgLME)
1972	10.30
1973	7.24
1974	7.30
1975	7.24
1976	6.32
1977	5.86
1978	5.93
1979	6.25
1980	5.49
1981	5.84
1982	7.85
1983	9.02
1984	10.06
1985	10.56
1986	11.32
1987	9.89
1988	9.66
1989	10.42

Source: C.S.O. Annual Statistical Digest (1970-1991)

Production moved from 10.3 million litres in 1972 to a minimum of 5.4 million litres in 1980 and then increased to 11.3 million litres six years later and has declined slightly since. Importations however increased to a maximum in 1983 and has since followed a slow but varied decline (Table 2). Over 90% of the consumer demand for milk comes from imports. This heavy reliance on inputs can make a country vulnerable to changes in the exporting country's market. This is not a desirable socio-economic position for any country. Also, this heavy reliance on dairy imports poses a heavy burden on the country's already burdensome food import bill. The 1983 Food Import Bill comprised of 14% dairy imports, while the 1989 Dairy Imports increased to TT$190.5 m from 1983's TT$128 m. Further, in 1991, $114.6 m of milk and cream were imported in addition to $15.0 m butter and $34.6 m in cheese and curd, a total value of $164.2 m. This represents a substantial outflow of foreign exchange particularly at this time when the country can hardly afford it.

Table 2. Milk Imports Into Trinidad and Tobago

Year	Aver. Import of Milk Production (Mn. Kg LME)
1970	21.00
1971	21.93
1972	22.02
1973	22.69
1974	25.68
1975	23.75
1976	22.48
1977	32.89
1978	32.22
1979	25.47
1980	37.52
1981	38.93
1982	34.57
1983	45.00
1984	37.77
1985	36.70
1986	34.57
1987	33.80
1988	24.91
1989	26.45

Source: C.S.O. Annual Statistical Digest (1970-1991)

At present, fresh milk production here attracts a high level of subsidy; *prima facie* this appears to be founded on the premise that milk has a low unit value and its price should therefore be pitched at a level sufficient to guarantee farmers an adequate income to keep them in the industry *[NADP, 1988]*. In 1981, total volume of fresh milk sold to Trinidad Food Products Ltd.(TFP). was 10.01 million litres for which farmers received a government subsidy of $9,000,975 and in 1980, production rose to 10.33 million litres with a subsidy of TT$9,296,936. With this volume of subsidies over the years, the industry is still far from being self-sufficient in milk production while the drain on foreign exchange continues.

FOOD SECURITY REMAINS BEYOND THE HORIZON

The market supply for fresh milk is dominated by the major milk processor, Trinidad Food Products Limited, which is the only raw-milk buyer of commercial significance. The company purchases over 75% of all milk produced locally. In the early sixties, the intake of local fresh milk by the company was very small. The dairy industry was then in its fledgling stages. At the time Trinidad Food Products Limited used bottle sterilization which was switched in 1970 to the UHT pasteurization process.

When the State Land Development Projects were established in 1965 and production increased, the GOTT found it necessary to find a processor capable of utilizing the supplies of fresh milk produced. As a result, TFP and a locally incorporated subsidiary of Nestle's Holdings Limited was established. The company was granted pioneer status for the processing of fresh milk produced by local farmers.

When milk prices were fixed in 1973, TFP indicated that it was unable to pay the full price of $0.36/litre. They were prepared to pay $0.26/litre. As a result the Government decided to pay a subsidy of $0.10/litre to meet the deficit. The arrangement agreed to then, which still holds, is that TFP pays the full price of milk to farmers. The State reimburses the company on the basis of the fortnightly submission of a milk paysheet. Whenever the price is reviewed, usually because of representations made by the dairy farmers, Government negotiates with TFP the proportion of the new price which is to be borne by the Company.

Because of its' role as the sole buyer of commercial importance of raw milk, TFP has enjoyed the following concessions:

1. Permission to sell all it's products, except sweetened condensed milk, which is under price control, at free market prices. (These products include UHT milks - plain and flavoured - coffee, milo and orchard brand juices.) Fresh milk purchased from farmers is a prime cost of UHT milks. Only a small proportion (less than 10% of fresh milk goes into the production of sweetened condensed milk which is made primarily from imported milk powder and butter oil.

   The retail prices of Sta Fresh UHT milk has increased from $0.80/litre in 1975 to $1.90/litre by 1980 and to $4.00/litre in 1992);
2. Duty-free concession for plant and machinery.
3. The option to negotiate a higher price for sweetened condensed milk. (This is under price control and negotiations for raw milk prices take place simultaneously with that for sweetened condensed milk).

In return, the Company has aided the industry in the following ways:

1. Free collection service twice per day for farmers' milk from collection depots at strategic locations throughout Trinidad and Tobago;
2. A free Dairy Extension Service;
3. Free sampling and testing of milk at farmers' requests and as required;
4. Supply of milk churns.

The NADP 1988 pointed out that in order to satisfy local consumer demands, the firm imports the bulk of the milk from the European Community, the United States of America and New Zealand. These milk imports are mainly in the form of bulk milk powder. It is obtained at a relatively cheap price, largely due to the contribution of oversupply and price support to producers in exporting countries, coupled with duty-free entry into the country. The current import regime imposes substantial tariff rates on imported processed products while bestowing duty-free concessions (and other fiscal incentives) for semi-processed and/or unprocessed raw materials for the local food processing industries. The processing industries have thus become the main beneficiaries of agricultural tariff protection while domestic agriculture has languished, unable to compete with cheap imports because of high costs. A similar situation exists in Jamaica.

The theoretical *raison d'être* for this is explained using Figure 1.

In the Figure below, D_1 and S_1 give the theoretical domestic demand and supply curves for the milk market. In autarky, the price is p_a with q_a being produced and consumed at home. The world price of p_w is below the autarky price. Since the country's citizens can buy or sell all that they wish at that price no one will buy at the higher price. The introduction of foreign trade, therefore, lowers price to p_w; domestic output falls to q_2, while quantity demanded equals q_1 with the difference, q_1 - q_2 being imported. Notice that trade lowers the price of the imported good below the autarky level. Notice also that the equilibrium is once again not where quantity demanded domestically equals quantity supplied; price is given by the world price.

This has implications for the domestic dairy sector because the imports compete with domestic production due to its lower price and in most cases superior quality. Thus it can be exclusively maintained that the milk import policy is intended to supply cheap food to its population. Advocating that government should opt for one objective is not necessarily suggested. One should consider whether supplying cheap food to the population is more important than the development of the dairy sector or whether they can sacrifice a percentage of the cheap food policy towards development of the dairy sector. Governments have often intervened mainly on behalf of urban interests sometimes much to the detriment of rural producers.

Munoz and Ford (1989) indicated that the low fresh milk production in Guyana resulted from the neglect of small producers who dominated the industry. The situation warranted a change in policy, and the focus shifted to incorporate the private small farm sector. The doubling of the farm gate price and the provision of a technological package successfully encouraged farmers to return to milk production and expand their operation. Milk production has since become an attractive viable commercial activity for small producers in Guyana.

One may question the operation of Trinidad Food Products Ltd. and the dominant role the Company has played in the sector. The chief arguments against multinationals stem from the fact that they are larger and more profitable than their local competitors and that they are concentrated in the growth industries of the Third World. These factors could well lead to their perpetual domination of the future economies of these countries. They are known to abuse their dominant positions by devices that benefit the company first, their parent company second and only then their host economy in the Third World *[Turner, 1973]*.

Turner (1973) further stated the hold of multinationals over Africa will probably be far more comprehensive than the hold they have had over Latin America. Obviously one has to adjust for their different levels of development, but certainly when Latin America's evolution was comparable to present-day Africa's (some time in the nineteenth century), foreign investors were mostly concerned with some kind of tropical agriculture (like bananas) or the extractive industries. Foreign entrepreneurs in those days had neither the knowledge nor the resources to grasp hold of an entire economy from its agriculture to its manufacturing industries. Today multinationals have that power. There is no reason to think that this trend toward multinational domination of key sectors of the economies will be stopped unless the relevant governments step in with extreme nationalistic policies. Also, there is hardly any cry from multinationals for higher tariff protection while this is a common cry from locals [Turner, 1995]. Governments often invite the multinationals to perform welfare duties for their country which is in antipathy to their aims and objectives.

Trinidad Food Products Ltd. has tariff free access to Europe's, the United States of America's and New Zealand's substantial dairy surpluses. This however has a two-fold impact, as the availability of cheap or free dairy imports not only discourages domestic milk production but also stimulates an increase in domestic consumption as indicated.

POLICIES TO PROMOTE SUSTAINABLE DEVELOPMENT OF THE DAIRY SECTOR

Rationale for the Policy/Policies

With the present high unemployment rate, shortage of foreign exchange, the limping world economy and the poor performance of the agricultural sector any effort towards development of national agriculture seems desirable. Specifically, a policy for the development of the dairy sector offers the following benefits:

(a) increased earnings for dairy farmers;
(b) conservation of scarce foreign exchange through reduced milk importations;
(c) relief from an undesirable degree of dependence on foreign sources for a nutrient as critical as animal protein in an uncertain world food situation;
(d) increased employment opportunities,
(e) positive externalities to the country such as reduction of beef and leather imports.

Farmers are rational decision makers and as such policy makers must understand how they operate in order to make policies. They must find the right mix mainly because in the agricultural sector, the bottom-line decisions are made by the farmers) i.e. the private sector) and yet still the nature and risk within the agricultural environment makes it heavily dependent on government intervention. Offer the wrong mix of policies and farmers may withdraw from investment.

Pricing policies are important, not so much to trigger short-term responses but to create short-term climate and expectations that are conducive to agricultural progress. There must be concordance between the planners' goals and private sector goals (producers and processors) otherwise problems may develop that can lead to side-effects which could derail it before it really has time to run its course.

Suggested Policies

The following policies are therefore recommended for the sustained development of the dairy sector:-

(a) Impose an *Ad Valorem Tariff* on each unit of imported dairy product. The quantity of the tariff should be commensurate with the rate of development of the local dairy sector and a trade-off with competing objectives.

The effect of the tariff will be a shift of the supply curve vertically upwards by the amount of the tariff since, as well as meeting all other costs, suppliers must also pay the tariff. In Figure 2 D and S represent the domestic demand and foreign supply for dairy imports. Price P_1 and quantity Q_1 are equilibrium values.

The new supply curve becomes S′ and the price and output change to P_2 and Q_2.

The policy therefore achieves a smaller quantity of import (Q_2). This reduced quantity of dairy product on the local market should therefore raise the market equilibrium price and encourage domestic production *ceteris paribus* (Appendix 1) showing the revenue, imports and production levels from the imposition of various rates of additional taxes in an undistorted and a distorted market respectively or,

(b) Impose a licence on imports thereby allowing a certain quota of imports (only Q_2 can be imported). This will make the supply curve into the heavy kinked line S′ (Figure 3). Again price and quantity shift to P_2 and Q_2 respectively.

This reduced quantity of dairy product on the local market should therefore raise the market equilibrium price and encourage domestic production (*ceteris paribus*), or

(c) Impose market differentiation legislation and a Value Added Tax on imported milk to consumers. The revenue should be paid to local dairy farmers as an output subsidy. Also special price incentives should be offered for higher production.
(d) Simultaneously an appropriate technological package should be provided to the farmers which would allow for exploitation of the price incentives.
(e) Development of other sectors of the economy to maximize exploitation of the externalities created from the sustained development of the dairy sector, such as abattoir facilities for slaughter, leather making and meat processing.
(f) Policy instruments should be developed, which may not be directed exclusively towards the dairy sector but nevertheless will affect it such as controlling demonstration effects.

The long-term effects of milk importations (because of its suppressing effect on local prices) - the entire society stands to loose in the long-run because the sustained development of the dairy sector may not be accomplished while importations and the foreign exchange drain continues which places economic development on an ambiguous path.

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Appendix 1: Revenue, Imports and Production Levels from Imposition of Various Rates of Ad Valorem Taxes in an Undistorted Market for Milk in Trinidad and Tobago

Tariff (%)	Revenue (TT$000)	Import: Powdered Milk in LME (mkg)	Production
5	81.11	5.09	9.23
10	72.35	4.54	9.50
20	54.83	3.44	10.05
28	40.82	2.56	10.49

Appendix II: Revenue, Imports and Production Levels from Imposition of Various rates of Ad Valorem Taxes in a Distorted Market (Distortion = 28%) for Milk in Trinidad and Tobago

Actual Tariff Powdered Milk (%)	Tariffs at LME (%)	Revenue (TT$000)	Import Powdered Milk in LME (mkg)	Production (mkg)
28.00	28.00	40.82	2.56	10.49
29.55	33.00	38.10	2.39	10.57
31.00	38.00	35.56	2.23	10.65
34.00	48.00	30.30	1.90	10.82

Market for Milk in Trinidad & Tobago

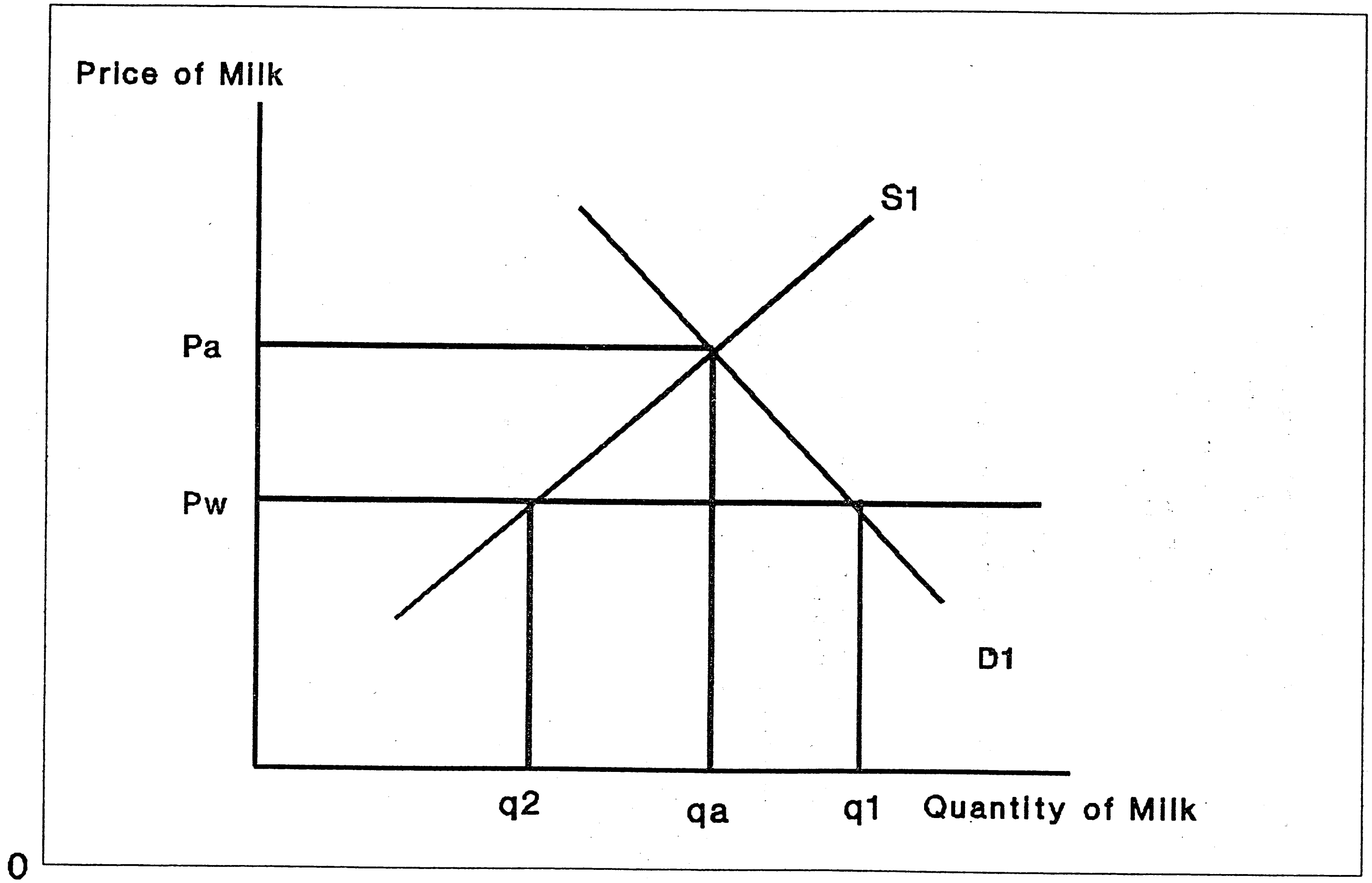

FIGURE 1

Imposition of An Ad Valorem Tariff on Milk Imports into Trinidad & Tobago

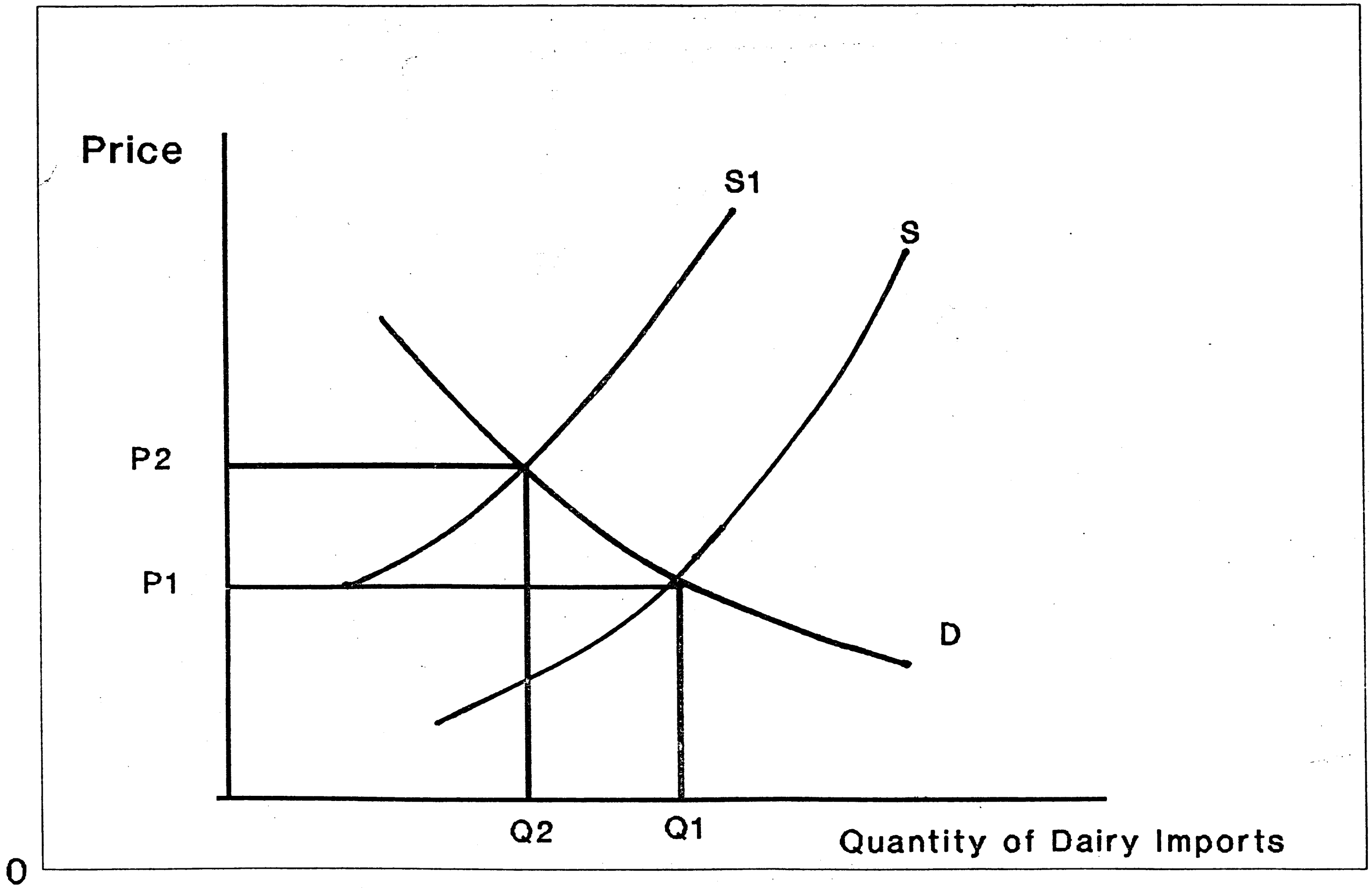

FIGURE 2

Imposition of a Licence in Milk Imports into Trinidad & Tobago

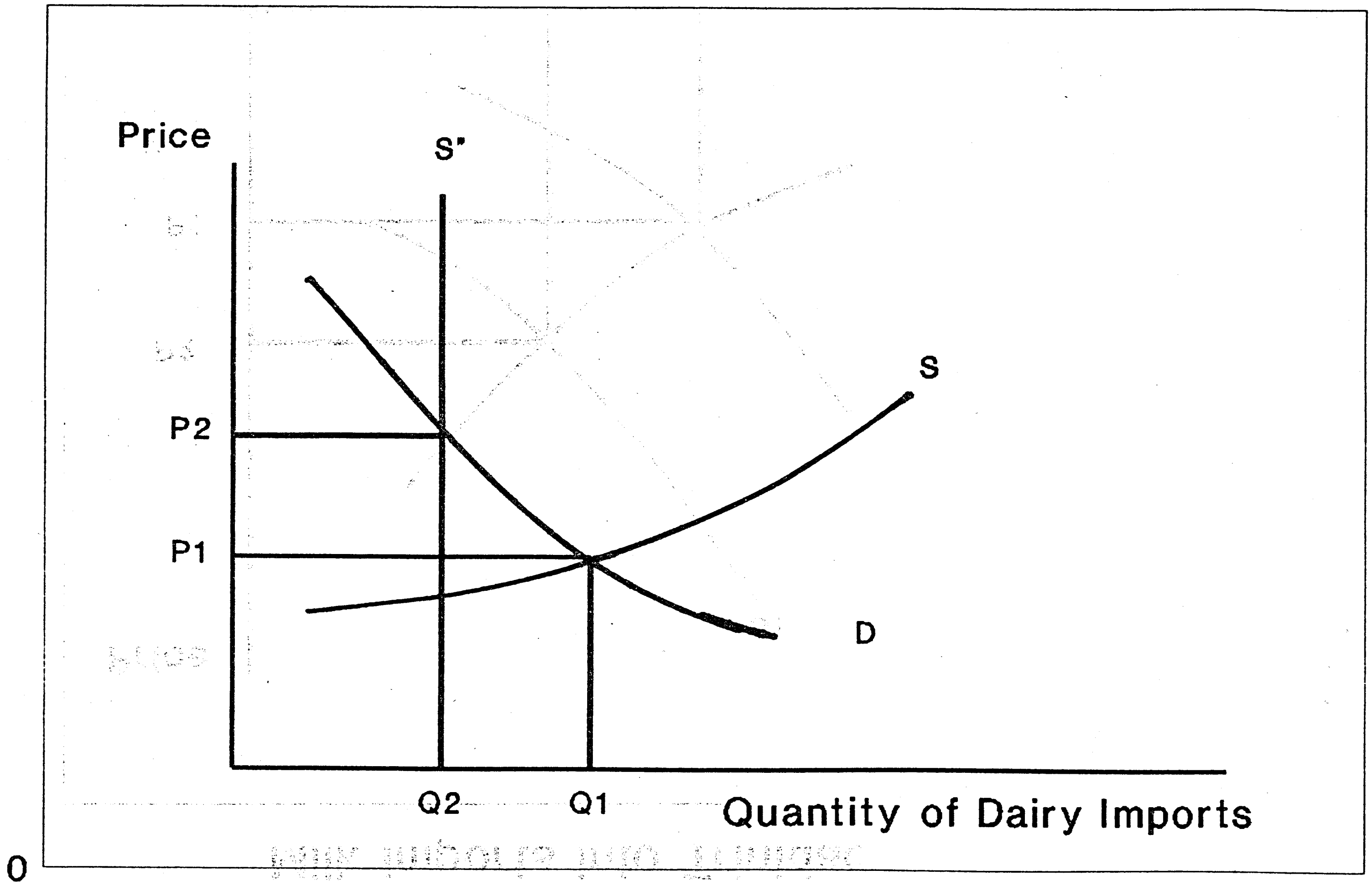

FIGURE 3