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Surveillance of Agricultural Prices and Trade

A Handbook for the Dominican Republic

Alberto Valdés and Barry Schaeffer
in collaboration with Jesus de los Santos

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FOREWORD

Latin America and Caribbean countries are at different stages of a policy reform process involving their overall economies and their agriculture sector. Agricultural trade and price policy reform are emerging as particularly complex and controversial topics.

The Surveillance project, for which this Handbook was prepared, was undertaken by the Advisory Group of the Technical Department in the Latin America and Caribbean Region to offer a framework for the analysis and monitoring of agricultural price and trade policy reforms. Each Handbook presents a quantitative analysis of the structure of incentives for agricultural activities and measures income transfers as a result of government policies for the country concerned. Quantification, and the resulting transparency, can be an effective deterrent against discriminatory treatment regarding agricultural pricing and trade.

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ABSTRACT

This is one of a series of handbooks which have arisen from a Surveillance project to evaluate agricultural price and trade interventions in eight Latin American countries for seven commodities for the period 1984 to 1994. The countries included in this Surveillance project are Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Paraguay and Uruguay. The aim of the project is to make transparent the effects of agricultural trade and price policies on agricultural incentives. The level and extent of protection and export taxation is often largely unknown, due to policy instruments and administrative measures that are difficult to quantify. To achieve this goal of transparency and comparability across products and countries, a common methodology was applied to each country to calculate four policy indicators: Nominal Protection Rate (NPR), Effective Protection Rate (EPR), Effective Rate of Assistance (ERA), and Producer Subsidy Equivalent (PSE). This Handbook presents and discusses the results and methodology for the Dominican Republic on cassava, coffee, sugar, tobacco, tomato, maize, beans and rice for 1984-1994.

PREFACE

How level is the playing field for agriculture after the initiation of trade and price reforms? Agricultural price interventions in Latin America were predominantly implemented using restrictions such as discretionary import and export licenses, direct price regulations, burdensome customs clearance procedures, and fixed and variable tariffs. The level and extent of protection and export taxation -- the hidden income transfers -- was largely unknown, due to the use of complex policy instruments. With the maze of overlapping effects it was virtually impossible to ascertain the effect of these impacts across subsectors. An outgrowth of this lack of transparency within the framework of price incentives is insufficient political pressure to attain a fair playing field within the agricultural market. Like most countries in Latin America, the Dominican Republic does not have a 'transparency institution' providing greater public awareness of the way in which activities in agriculture and other sectors can sometimes receive preferential treatment.

Most countries in Latin America including the Dominican Republic are beginning to embark on a unilateral process of tariffication with bound tariffs, eliminating quota restrictions and also removing export taxes. This should result in a more transparent trade regime in the future, and make domestic prices more sensitive to changes in border prices.

The Surveillance project addresses a major gap in the analysis of trade and price policy for agriculture. To provide transparency, countries require a mechanism which enables vigorous screening and monitoring of price interventions. Once reforms are undertaken what indicators can be used to analyze surveillance of price interventions? For this report a quantitative assessment of trade and price policy interventions has been carried out involving seven commodities for eight Latin American and Caribbean countries during 1984-1994. These countries are Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Paraguay and Uruguay. Four policy indicators, Nominal and Effective Rates of Protection (NPR and EPR), Producer Subsidy Equivalent (PSE) and the Effective Rate of Assistance (ERA) were used. To achieve comparability across products and countries, a common methodology and formatting was applied to the data to calculate the four policy indicators. Gauged annually, these indicators expose subsidies and taxes in specific commodity markets. It is proposed that such surveillance be institutionalized and undertaken periodically as a monitoring mechanism to assess agricultural trade and price reform.

The main results for the Dominican Republic are discussed in Chapter 2.

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Alberto Valdés and Barry Schaeffer

INTRODUCTION

The Surveillance Study seeks to provide a consistent framework and yardstick with which to measure the progress of price and trade reforms. As a part of that study, this Handbook has the following goals:

- to explain each quantitative tool used to assess trade and price policy with respect to a commodity (Chapter 1);

- to present the results along with supporting documentation for the calculation of protection indicators (Chapter 2 and Appendix A); and

- to provide the reader with a broad description of the particular country's agricultural markets, Dominican Republic in the present case (Appendix B).

Beginning in 1984 and continuing through 1994, this project's goal is to assess *historical* agricultural price policy (*i.e.*, prior to reforms), and *current* agricultural price policy. Four policy indicator measures of assessment have been applied to several major importable and exportable agricultural commodities; they are:

Nominal Protection Rate (NPR);
Effective Protection Rate (EPR);
Producer Subsidy Equivalent (PSE), and
Effective Rate of Assistance (ERA).

Chapter 1 explains these policy indicators. Each is subject to limitations and is an approximation. Using the four indicators means that the NPR and the EPR are complementary to the PSE and ERA. The first two are effective in measuring the structure of incentives as affected by price interventions. The latter two are effective in quantifying the combined effect of price and non-price policies on income transfers between producers and the rest of the economy. Combined, the four provide insight into a sector's aims and incentives.

A tariff-equivalent approach based on direct border/domestic price comparison was used to estimate the market price support component to these indicators. While we expect that trade and price policy intervention explain most of the observed price wedge, one cannot rule out that domestic market structure in the particular activity will also influence the results. Thus, not all of the price wedge observed is policy induced.

The results reported should not be viewed in a vacuum. The four indicators help readers to see quantitative results in terms of a broader picture. However, depending on how the question is posed, different analysts can arrive at very different numbers (for the

same product in a given year.) Thus, it is necessary to provide detailed information for background computations. The analysis of these indicators allows policymakers to examine various policy issues. For example, which activities help or hinder agricultural price and trade policy? Are transfers price-based, or do they exist as direct income transfers? Are reforms already in place that reduce the level of protection? How much and how accurately do the quantitative indicators reflect exogenous shocks, such as changes in border prices? How uniform is the structure of incentives across various activities? Does the trade regime result in significant anti-export bias?

The main results are shown on page 17, in figures 1a and 1b, and tables 5, 6 and 8. Figures 1a and 1b with table 8 illustrate income transfers. For importables (figure 1b), income transfers from price and non-price interventions have demonstrated annual volatility. For exportables (figure 1a), large negative transfers have remained constant throughout the period of the study.

CHAPTER 1

PROTECTION INDICATORS DEFINED

Definition of Indicators

In order to measure periodically the structure of incentives for various agricultural activities, and to produce a consistent, quantitative assessment of income transfers between agriculture and the rest of the economy, indicators must be comparable over time, across commodities, and across countries. Further, they must be easy to measure and understand, and must accurately reflect the incentive structure of the underlying policy instrument(s).

Data Assembly

The first step is to examine and understand the data used to calculate the indicators. A review of the characteristics of the indicators follows a discussion of the process by which the data were assembled.

The Surveillance Project's analysis begins with a broad overview of a given commodity's marketing chain in the country concerned, followed by information gathering. Is a commodity exportable or importable? How many steps exist in the chain? Is any significant processing required? A typical chain involves transport to processor - processing - transport to the wholesaler - wholesaler's activity - transport to port facility - lading and shipment. Once the marketing chain has been delineated, each step of the chain can be analyzed with cost and price estimates.

The NPR, EPR, PSE and ERA all involve comparison of a domestic price with its border equivalent. This is true for both inputs and outputs. The next logical step in the surveillance process is to focus on pricing instruments using the marketing chain derived above as a sequential series of "price points."

Relevant domestic prices of both outputs and inputs need to be obtained before assembling the database to calculate protection rates. It is also necessary, in the case of inputs, to acquire the technological coefficients of converting input into output. Domestic prices should ideally be acquired at the farm level. In reality, however, most prices are based on those at the central market, warehouse or auction (outputs) or at retail (inputs). This information can be obtained from farm budget data. Direct payments through subsidies, and such costs as taxes and payments to marketing boards should be accounted for at the farm level in addition to those prices paid and received directly.

After delivery of the commodity to the central market, transportation and marketing costs are an important consideration as are any necessary processing costs. Internal

transport and related costs can be substantial, and provide for a 'natural' rate of protection to producers of importables and an implicit tax to the producers of exportables. Physical transformation of the raw product, i.e., wheat ground into flour, soybeans crushed into oil and meal, and cotton ginned into seed and fiber, are also accountable costs. Thus, conversion factors must take into consideration such processes. Moreover, price subsidies and taxes may exist in addition to the direct costs.

Transportation should also be considered a major cost unless the processing center/central market is close to the port of entry/exit.

At the port of entry/exit in the marketing chain all tariffs, taxes, subsidies, port charges and other costs associated with either the importation or exportation of a commodity must be accounted for. This stage in the marketing chain is the most difficult to examine because it is here that the government (or other interested party) is most likely to intervene. In addition, border prices of the commodity and its inputs are identified at this stage. For example, the government may charge large user fees that are implicit tariffs if state trading is a factor. Border prices, when converted to domestic currency from world prices, reflect the opportunity cost to the economy of producing the commodity. This focus on the use of opportunity cost as a benchmark against which trade and price policy is assessed is the essence of the economic approach used in this study.

Many problems exist in selecting the world price benchmark. If grade and quality differences exist between the internationally traded product and the local commodity, problems arise because one could be comparing dissimilar products. As a result, the estimate of protection may be measuring differences in the two products and not protection. An example would be white vs. paddy rice. In addition, the world price itself can be misleading if the markets are thinly traded (for example, white maize).

At this stage in the marketing chain a proper exchange rate should be identified. The criterion for selection in the Surveillance report was the exchange rate farmers/processors/exporters receive for their product. In most cases it was the official exchange rate. However, existence of multiple exchange rates or some other form of indirect taxation using the exchange rate complicates the task of defining a valid rate.

The Surveillance Project did not include an adjustment for indirect effects of economywide policies in the real exchange rate[1]. Thus, all calculations of the four indicators, NPRs, PSEs, ERAs, and EPRs, are at the relevant nominal exchange rate.

A critical step before the calculation of the indicators is price adjustment. In determining the adjustments three decisive factors are taken into consideration. The first is whether the commodity is an exportable or importable. The second is the place or point of

[1] See Maurice Schiff and Alberto Valdés, "The Political Economy of Agricultural Pricing," Economics in Developing Countries, vol. 4 (Baltimore, MD: Johns Hopkins University Press, 1992).

competition between the domestically produced commodity and its overseas counterpart. The third is the point in the marketing chain at which the two prices are to be compared.

For the exportable, the point of competition is normally the port. Using the central farm marketing point as the place of comparison, the costs of the marketing chain must be subtracted from the f.o.b. border price to obtain the farm-level price. The net result is a border equivalent price that can be meaningfully compared to the domestic price.

For an importable, the point of competition is frequently the processor. Again using the central farm marketing point as the place of comparison, the marketing chain cost must be added to the c.i.f. border price until the point of competition is reached. The costs are then subtracted from the central farm marketing point.

These adjustments provide an accurate comparison between the domestic price and its efficiency benchmark. Below, an example of the calculation together with actual illustrations of these adjustments is given along with discussions of each indicator.

Nominal Rate of Protection (NPR)

In this study the Nominal Protection Rate is defined as the ratio of the prevailing domestic price relative to the appropriate adjusted border price in the absence of intervention. Thus, our NPR is an 'equivalent tariff' measure and does not necessarily coincide with the explicit tariff for the commodity in question.

The formula for the NPR for commodity *i* is the following:

$$NPR_i = \frac{P_i^d - P_i^w E_o}{P_i^w E_o}$$

where P^d is the domestic price, P^w is the world price of commodity *i*, and E_0 is the exchange rate.

While this calculation is relatively simple, it is very important to select accurate prices for the ratios, and it is essential to have a thorough understanding of the domestic markets where the prices are formed.[2]

Once the NPR is calculated, the results can be interpreted. Values can range from positive to negative and each has its own meaning regarding policy.

A *positive* NPR means the producer is receiving a higher price for the commodity than he would without intervention, and the consumer is paying more for the product. Positive protection is frequently associated with importables.

[2] See chapters 2, 3 and 4 in Isabelle Tsakok, Agricultural Price Policy, (Ithaca, NY: Cornell University Press, 1990) for a useful reference on the NPR, EPR and PSE.

A *negative* NPR signals that the producer is being discriminated against relative to the prevailing border prices.

A *zero* NPR suggests that the structure of protection is neutral, i.e., producers face domestic prices comparable to border prices.

The following NPR calculation will help illustrate the above (see table 1). The commodity depicted is coffee, an exportable.

Table 1 is a standardized format designed to approximate the marketing chain of a commodity. Section 1 in the table determines the correct exchange rate and border price. Using 1994 as an example, the appropriate border price is US$2,301.2 per MT FOB. This represents the cost of one MT of coffee purchased in the Dominican Republic. Since this study does not adjust for a possible exchange rate misalignment, the official exchange rate is used.[3] For 1994, the exchange rate is 12.85 Dominican Republic pesos (DR$) per US dollar.

The costs associated with exporting the commodity are then examined. These costs are reported in section 2. In the example, the reported annual figures represent a combination of export taxes and market structure. Examining 1994, one sees an adjustment of -DR$7,582.8 to account for these costs.

The next step is to examine costs associated with the marketing chain. Sections 3, 4 and 5 of table 1 account for these costs. In section 4, processing costs are reported along with the conversion factor from cherry to green coffee. In 1994, for example, the processing cost was DR$1,340.5. The conversion factor, which was 2.1, is the ratio at which the total volume of raw product (cherry coffee) is converted into the processed product (green coffee). In this case, it takes 2.1 MTs of cherry coffee to yield 1 MT of green coffee. Finally, in many cases after accounting for all the costs, a difference still exists between the border equivalent and the domestic price. Market structure is the main cause of the difference between the two prices. Therefore, to account for these differences, an adjustment is made in section 4. For coffee, this adjustment was not necessary. However, other commodities, such as cassava, maize and rice (appendix tables) do require this adjustment. It is important to note that with this adjustment the border equivalent price with intervention (section 5) will equal the domestic price reported in section 6.

In section 6 appropriate domestic prices are selected. In 1994, the domestic price was DR$8,994. The NPR estimates appear in section 7. To calculate the NPR for 1994, the difference between the domestic and border equivalent price (DR$8,994 - DR$12,557.9 = -DR$3563.9) is divided by the border equivalent price. The estimate for 1994 is -28.4%. Chapter 2 discusses the results.

[3] For a comparison of the NPRs with and without the exchange rate misalignment correction for eighteen developing countries, see Schiff and Valdés, "The Political Economy of Agricultural Pricing."

TABLE 1
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Coffee | Point of Competition: Border

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE													
	Exchange Rate	$DR Per US$	1.5	2.0	1.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5	12.9
	Border Price	$US FOB Ton Green	2,746.3	2,807.2	3,639.5	2,153.0	2,461.9	2,320.3	1,430.0	1,556.5	1,240.0	1,190.8	2,301.2
	Border Price in Local Currency		4,064.6	5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,886.0	29,571.0
2. BORDER ADJUSTMENTS													
	Tariffs/Subsidies/Adjustments	(a)	(1,765.1)	(2,609.2)	(2,330.8)	(2,168.3)	(6,044.0)	(4,038.5)	(304.0)	692.5	607.4	2,180.5	(7,582.8)
	Port Charges												
	Storage/Handling/Loss												
	Border Price Equivalent (with intervention)		2,299.4	2,977.1	4,424.0	6,109.5	9,069.8	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Border Price Equivalent (without intervention)		4,064.5	5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,885.0	29,571.0
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)													
	Tariffs/Subsidies/Adjustments												
	Transportation												
	Other												
	Border Price Equivalent after Processing (with intervention)		2,299.4	2,977.1	4,424.0	6,109.5	9,069.8	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Border Price Equivalent after Processing (without intervention)		4,064.5	5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,885.0	29,571.0
4. PROCESSING COST (WHOLESALE MARKET)													
	Tariffs/Subsidies/Adjustments												
	Processing Costs		(122.2)	(165.1)	(180.0)	(210.0)	(303.3)	(441.0)	(703.3)	(1,076.6)	(1,108.0)	(1,196.6)	(1,340.5)
	Marketing Margins												
	Other												
	Conversion	(b)	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	Border Price Equivalent before Processing (with intervention)		967.9	1,246.4	1,917.6	2,686.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Border Price Equivalent before Processing (without intervention)		1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR													
	Tariffs/Subsidies/Adjustments												
	Transportation												
	Other												
	Border Price Equivalent at Collection Point (with intervention)		967.9	1,246.4	1,917.6	2,686.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Border Price Equivalent at Collection Point (without intervention)		1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
6. DOMESTIC PRICE	Border		2,299.4	2,977.1	4,424.0	6,109.5	9,069.8	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Wholesale		967.9	1,246.4	1,917.6	2,686.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Collection Point (Farm)		967.9	1,246.4	1,917.6	2,686.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
7. NPR	Border		-43.4%	-46.7%	-34.5%	-26.2%	-40.0%	-27.5%	-2.5%	3.6%	3.9%	14.6%	-25.6%
	Wholesale		-46.4%	-49.8%	-36.6%	-27.7%	-41.8%	-29.4%	-2.9%	4.1%	4.6%	17.7%	-28.4%
	Collection Point (Farm)												

a. Represents an export tax.
b. Represents a conversion ratio of cherry to green coffee of 47.4%

Source: Surveillance Project, LATAD, 1996

Effective Protection Rate (EPR)

In most cases, trade policy extends beyond output prices and into the input markets. The Effective Protection Rate (EPR) indicator accounts for these additional interventions. The EPR measures how trade barriers on a product and its tradable inputs jointly affect value-added in a particular activity.

This indicator has the advantage of examining the resource allocation effect of a tariff structure. Previous work has shown that the same tariff (or NPR) can imply different Effective Rates of Protection, depending on the level of taxation on the imported inputs and on their importance in the production process. By including inputs, the EPR becomes a more encompassing instrument and, at the same time, more difficult to calculate. Inputs are often subject to both tariffs and quantitative restrictions. Product quality and defining an appropriate border price for a direct price comparison can be a problem. This study considers the principal purchased inputs including fertilizers, chemicals, seed, and the cost of operating farm machinery and equipment (tractors, combines, milking equipment, plows and fuel consumption).

Calculation of the EPR is very similar to that of the NPR. Instead of being a ratio of the output prices, as is the NPR, the EPR is a ratio of the value-added at domestic prices (intervention) to value-added at world prices (without intervention). Value-added is defined as the value of output less input costs.

The formula for the EPR for commodity *i* is the following:

$$EPR_i = \frac{VA_i^d - VA_i^w E_o}{VA_i^w E_o}$$

where VA^d and VA^w are value-added at domestic and world prices, and E_o is the appropriate exchange rate.

Interpretation of the EPR is similar to the NPR. For *positive* EPRs, the returns earned through the activity with intervention are greater than those earned without intervention. For *negative* EPRs, the reverse is true. Finally, for EPRs equal to *zero*, the protection factor is neutral and the returns are the same.

Since EPRs are, in fact, NPRs which have been extended to include inputs, similar behavior between the two indicators is expected under certain conditions. For example, if the inputs are a small proportion of the value of output, calculating the EPR is of little value.

Although the EPR provides additional information, it also contains biases because of input substitution possibilities. In practice, however, these biases tend to be ignored because elasticities of substitution are virtually impossible to obtain.

Again, an actual EPR calculation illustrates the above (see table 2). The commodity depicted is, once again, coffee as an exportable.

Section 1 contains both the domestic and border equivalent price of 1 ton of coffee. For 1994, the domestic price is DR$8,994 and the border equivalent price is DR$12,557.9. It is important to note how these two prices are derived. Referring back to table 1, the two prices can be found in section 5. Their ratio minus 1 is the NPR. In effect, the concept of EPR starts where that of the NPR ends (the relationship between the domestic and border output price) and expands the NPR concept to include input prices (both domestic and border).

The example incorporates three direct tradable inputs into the calculations (see section 2 of table). The tradable direct inputs used include fertilizer, fungicides, and insecticides. The domestic and border equivalent prices are reported along with a technical coefficient for each input. The technical coefficient is the amount of input needed to produce one unit of output. For coffee, the unit is one ton. Using 1994 as an illustration, it required .11 MT of urea, 5.56 kg of fungicide and .36 lt of insecticide to produce 1 ton of coffee. Each of these inputs is valued at both its domestic (DR$3,850 per MT for fertilizer) and border cost (DR$4,047.8 per MT for fertilizer). The sum of the direct tradable inputs valued per ton at their domestic price is DR$1,256.7 and at the border price is DR$1,088.

No inputs were listed under section 3, indirect tradable inputs. Section 3 follows the same format as section 2. Combined, section 2 and 3 will add up to the cost of the reported inputs inproducing one ton of coffee.

Section 4 tabulates value-added at both domestic and border equivalent prices. Value-added at domestic prices is the domestic price of output per ton less the sum of the three directly tradable inputs valued at their domestic price. Value-added at border equivalent prices is the border equivalent price of the output (determined from NPR calculations) less the sum of the same inputs valued at border equivalent prices. For 1994, the value of 1 MT of coffee at domestic prices is DR$8,994 and DR$12,557.9 at border equivalent prices. The sum of the costs (tradable direct and indirect) valued at domestic prices is DR$1,256.7. The same costs valued at border prices are DR$1,088. Therefore, value-added at domestic prices is DR$7,737.3 and at border prices is DR$11,469.9.

Section 5 shows the calculations for the EPRs. For 1994, the EPR is the difference between value-added at domestic and border prices (DR$7,737.3 - DR$11,469.9 = -DR$3,732.6), divided by value-added at border prices. The EPR resulting from this calculation is -32.5%. Chapter 2 discusses the results.

TABLE 2
Standardized Format
Effective Rate of Protection

Country: Dominican Republic — Type: Exportable
Commodity: Coffee — Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Value at Domestic Prices		967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
Border Price Equivalent		$DR Per MT	1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Value at Border Price Equivalent		1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	Domestic Price	DR$ Per MT	458.40	576.50	913.80	1251.10	1588.40	1630.64	2772.00	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		50.4	63.4	100.5	137.6	174.7	179.4	304.9	446.4	447.7	360.6	423.5
	Border Price Eq.	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,553.3	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		18.8	69.5	60.6	81.9	149.9	191.5	280.9	424.1	426.3	429.0	445.3
Fungicide	Quantity	KG	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56
	Domestic Price	DR$ Per KG	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		70.9	95.7	104.3	119.9	167.4	241.9	278.0	329.2	642.1	650.5	667.2
	Border Price Eq.	DR$ Per KG	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		63.8	86.1	104.3	119.9	167.4	241.9	278.0	235.4	459.1	521.8	530.1
Insecticide	Quantity	LT	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
	Domestic Price	DR$ Per LT	89.00	115.70	125.35	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		32.0	41.7	45.1	51.8	72.5	100.8	150.1	169.9	198.0	200.2	166.0
	Border Price Eq.	DR$ Per LT	80.0	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		28.8	37.5	45.1	51.8	72.5	100.8	150.1	121.5	141.6	123.2	112.7
Total Direct Inputs (Domestic Prices)			153.4	200.8	250.0	309.1	414.5	522.0	733.7	945.4	1,287.8	1,211.3	1,256.7
Total Direct Inputs (Border Price)			111.5	193.1	210.0	253.6	389.7	534.1	712.7	780.9	1,026.9	1,074.0	1,088.0

Source: Surveillance Project, LATAD, 1995

TABLE 2 (cont.)
Standardized Format
Effective Rate of Protection

Country: Dominican Republic
Commodity: Coffee
Type: Exportable
Level: Farm

		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
3. TRADABLE INDIRECT INPUTS												
_____	Quantity											
	Domestic Price											
	Domestic Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price											
	Border Price Eq. Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED												
Direct Inputs Only	At Domestic Prices	814.6	1,045.7	1,674.4	2,372.5	3,582.3	4,042.0	4,065.8	7,374.8	5,174.7	5,612.9	7,737.3
	At International Prices	1,693.3	2,290.4	2,812.6	3,461.1	6,472.7	5,928.1	4,229.7	7,213.8	5,150.1	4,725.4	11,469.9
Direct & Indirect Inputs	At Domestic Prices	814.6	1,045.7	1,674.4	2,372.5	3,582.3	4,042.0	4,065.8	7,374.8	5,174.7	5,612.9	7,737.3
	At International Prices	1,693.3	2,290.4	2,812.6	3,461.1	6,472.7	5,928.1	4,229.7	7,213.8	5,150.1	4,725.4	11,469.9
5. EPR		-51.9%	-54.3%	-40.5%	-31.5%	-44.7%	-31.8%	-3.9%	2.2%	0.5%	18.8%	-32.5%

Source: Surveillance Project, LATAD, 1995

Producer Subsidy Equivalent (PSE)

Governments intervene in a variety of ways in an attempt to assist agricultural producers. Although price interventions represent an important form of assistance, non-price measures could be important as well. The PSE can be defined as compensation to farmers for the loss of income resulting from the removal of domestic agricultural policy measures at a given level of production. Specifically, it is the sum of net output market support, input subsidies, marketing/transport/storage subsidies, deficiency payments, and non-price transfers (research, extension, irrigation)[4]. Expressed as a sum, the PSE is an absolute aggregate monetary figure and can be calculated both for individual commodities or as an overall sector PSE. However, to make the PSE comparable across commodities and countries, the aggregate PSE should be expressed as a ratio. The PSE is then a ratio of policy transfers compared to the total value of domestic production (valued at domestic prices).

The formula for the PSE for commodity i is as follows:

$$PSE_i = \frac{((P_i^d - P_i^w E_o)Q_i) + \Sigma((p_{ij}^d - p_{ij}^w E_o)TC_{ij}Q_i) + DP_i + NPT_i}{P_i^d Q_i}$$

where P^d and P^w are the domestic and world price of commodity i, p^d and p^w are the domestic and world prices of input j for commodity i, TC is the technical coefficient of input j for commodity i, Q is the total production of commodity i, DP and NPT are the deficiency payments and non-price transfers payable to producers of commodity i, and E_o is the exchange rate.

In addition to price interventions, this instrument can capture a variety of non-border types of assistance to producers. Non-border transfers cover a range of expenditures, from agricultural research and extension, public investment in irrigation, and credit subsidies, to broader benefits like tax concessions. The PSE herein covers only those public expenditures allocated to the specific commodities being analyzed.[5] As a measure of iso-income rather than a unit subsidy at a given level of output, the PSE is a lump-sum budgetary substitute for both price transfers (as measured by EPR) and non-price transfers. The net income of farmers from transfers through the output and input market remains unchanged. It is important to note that this definition differs from other estimates because non-price transfers have not been included in the denominator. Our decision not to include non-price transfers is based on our opinion that farm income, as

[4] For a more detailed explanation of the PSE, see GATT, "Quantitative Measurement of Support: The PSE", Technical Paper 87-1315 (Geneva, Switzerland: GATT), September 8, 1987.

[5] The coverage of the non-price transfers can differ amongst various studies. For a discussion on this see Tim Josling and Stefan Tangerman, "Measuring Levels of Protection in Agriculture: A Survey of Approaches and Results" in Agriculture and Governments in an Interdependent World: Proceedings of the 20th International Conference of Agricultural Economists, edited by A. Maunders and A. Valdés (Brookfield, VT: Gower Publishing Co., 1990).

TABLE 3
STANDARIZED FORMAT
PRODUCER SUBSIDY EQUIVALENT

Country: Dominican Republic
Commodity: Coffee
Type: Exportable
Level: Farm

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Market Value of Output											
Output (Thousands of Tons)	136.1	75.74	110.45	131.92	99.71	106.13	90.43	112.55	95.7	87.0	98.6
Price Per Ton (DR$)	965.38	967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2
Total Market Value of Output (1000 DR$)	131,388	73,310	137,666	253,863	267,382	424,186	412,730	540,186	796,574	562,496	673,137
Assistance (1000 DR$):											
Market Price Support	(46,110)	(63,382.8)	(136,621.2)	(145,773.9)	(102,499.5)	(304,214.2)	(171,645.2)	(16,080.3)	31,161.3	24,846.0	101,088.3
Marketing Subsidies	0	0	0	0	0	0	0	0	0	0	0
Input Policies	(961)	(3,172.2)	(844.4)	(5,281.1)	(5,534.2)	(2,630.7)	1,061.6	(2,359.7)	(15,751.6)	(22,705.2)	(13,541.3)
Credit Assistance	17,250	13,580	9,730	6,730	9,490	26,060	30,940	15,130		32,240	46,700
Research & Extension											
Total Assistance	(29,821)	(52,975)	(127,736)	(144,325)	(98,544)	(280,785)	(139,644)	(3,310)	15,410	34,381	134,247
Producer Subsidy Equivalent	-22.7%	-72.3%	-92.8%	-56.9%	-36.9%	-66.2%	-33.8%	-0.6%	1.9%	6.1%	19.9%

Source: Surveillance Project, LATAD, 1995

perceived by the agriculture sector and many government census departments, does not include government expenditure on research and extension, and irrigation.

Interpretation of the PSE is similar to the other indicators. A *positive* PSE reflects that the producer is receiving positive income transfers. A *negative* PSE means the producer is being taxed. *Zero* PSE implies a neutral policy. Unfortunately, the PSE reflects the costs of providing assistance (non-price interventions), and not the actual benefits received by farmers. Thus, the PSE will be inflated by the difference between cost of the program and actual benefit received by producers (the difference being the costs of administration), and the amount of inflation is determined by the government's efficiency in providing the benefits to the producers.

Table 3 illustrates the calculation of the PSE for coffee. In 1993, out of a total net transfer of DR$134,247 (PSE of 19.9%), output subsidy provided DR$101,088.3 of the gross income of coffee growers (out of a total harvested value at DR$673,137 at domestic prices.) Input policies cost DR$13,541.3.

Effective Rate of Assistance (ERA)

The Effective Rate of Assistance (ERA) is conceptually close to the PSE and the EPR. It is similar to the PSE in that it attempts to capture non-price as well as price assistance, but is dissimilar in that the ERA measures effects on value-added. The ERA is the difference in domestic and international aggregate value-added prices added to transfers from marketing, transport and storage subsidies, deficiency payments, and non-price transfers (research, extension, irrigation) relative to aggregate international value-added prices.

The ERA can be defined as the percentage change in returns per unit of output to an activity's value-adding factors due to the entire assistance structure:[6]

$$ERA_i = \frac{((VA_i^d - VA_i^w E_o)Q_i) + DP_i + NPT_i}{VA_i^w E_o Q_i}$$

where VA^d and VA^w are value-added per unit of output for commodity *i* at domestic and world prices, Q is the total production of commodity *i*, DP and NPT are the deficiency payments and non-price transfers payable to producers of commodity *i*, and E_o is the exchange rate.

The ERA represents the broadest indicator of protection used in the study. This means, however, that the data required for calculations are difficult to obtain and manipulate.

[6] For a reference on the origin and concept of the ERA, see GATT, "Effective Rate of Assistance and Related Methods," Technical Bulletin UR-89-0392 (Geneva, Switzerland: GATT), November 20, 1989.

Interpretation of the ERA is much the same as the other indicators of protection. A *positive* ERA indicates government intervention in favor of the producer. A *negative* ERA indicates that the producer is being penalized. A *zero* ERA implies that government interventions have little effect in either direction.

Table 4 uses the exportable coffee as an example. Section 1 estimates output assistance. Total assistance for the ERA is measured using a monetary absolute. In this case, total output is multiplied by the domestic price giving the total revenue with all intervention taken into account and by the border price equivalent giving the total revenue without taking any intervention into account. Using the year 1993 as an example, total output is 99,000 MT while the domestic and border equivalent prices are DR$6,824.2 and DR$5,799.4 respectively. Total revenue with intervention is DR$673,137 million whereas total revenue without intervention is DR$572,053 million.

In section 2, input assistance is estimated using the same methodology as output assistance. Cultivated area or output is multiplied by the appropriate technical coefficient; this figure is then multiplied by the domestic price and the international price of the input to obtain an estimate of total output cost. In the case of the Dominican Republic, three inputs were used: fertilizer, fungicide, and insecticide. Six estimates of total individual input cost were calculated; three at domestic prices and three at border equivalent prices during 1993. Presented in the first line of this section is the technical coefficient of .11 MT of fertilizer needed to produce 1 ton of coffee. The second line represents the total amount of fertilizer needed to produce 99,000 MT of coffee (technical coefficient multiplied by the annual production for 1993). Thus, the total amount of fertilizer used in 1993 was 11,000 MT. The total value of fertilizer at domestic and border prices is then calculated. The domestic price is DR$3,278 per MT and the border price is DR$3,900 per MT. Multiplying these prices per ton by the amount of fertilizer used, gives the total value of fertilizer valued at the domestic price (DR$35,568 million) and at the border price (DR$42,317 million). Each of the above steps is carried out for each input.

Section 4 illustrates non-price assistance. Data for this frequently comes from government budget data and are aggregate totals allocated to a specific commodity. As a result, money absolutes are used in many cases. For coffee, no non-price assistance was reported.

The composite value-added calculation at both domestic and border equivalent prices is shown in section 4. In 1993, aggregate value-added at domestic prices was DR$553.7 million and at border prices DR$466.1 million.

Section 5 is the calculation of the ERA. In the above example, dividing DR$553.7 million by DR$466.1 million, subtracting 1 gives an ERA for coffee of 18.8% in 1993.

TABLE 4
Standardized Format
Effective Rate of Assistance

Country: Dominican Republic | Type: Exportable
Commodity: Coffee | Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1. OUTPUT ASSISTANCE												
Total Production		1000 MT Cherry	76	110	132	100	106	90	113	96	87	99
Domestic Price		$DR Per MT	967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2
Total Output Value at Domestic Prices			73,312	137,664	253,872	267,384	424,202	412,709	540,201	796,613	562,496	673,137
International Price		$DR Per MT	1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4
Total Output Value at International Price			136,694	274,297	398,760	370,391	728,340	584,346	556,282	765,450	537,650	572,053
2. INPUT ASSISTANCE												
	Total Production	1000 MT Cherry	76	110	132	100	106	90	113	96	87	99
Fertilizer	Input's Use Per	MT	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	Inputs's Total Use		8	12	15	11	12	10	12	11	10	11
	Domestic Price	DR$ Per MT	458.4	576.5	913.8	1,251.1	1,588.4	1,630.6	2,777.8	4,057.9	4,070.0	3,278.0
	Input's Total Value @ Domestic Prices		3,819	7,004	13,261	13,722	18,544	16,220	34,392	42,737	38,968	35,568
	International Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,743.5	2,553.3	3,855.0	3,875.0	3,900.0
	Input's Total Value @ International Prices		1,427	7,676	7,996	8,171	15,914	17,342	31,612	40,601	37,101	42,317
Fungicide	Input's Use Per	KG	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56
	Inputs's Total Use		421	614	734	554	590	503	626	532	484	548
	Domestic Price	DR$ Per KG	12.8	17.2	18.8	21.6	30.1	43.5	50.0	59.2	115.5	117.0
	Input's Total Value @ Domestic Prices		5,369	10,569	13,753	11,953	17,762	21,870	31,290	31,515	55,886	64,167
	International Price	DR$ Per KG	11.5	15.5	18.8	21.6	30.1	43.5	50.0	42.3	82.6	93.9
	Input's Total Value @ International Prices		4,834	9,512	13,753	11,953	17,762	21,870	31,290	22,534	39,959	51,471
Insecticide	Input's Use Per	LT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Inputs's Total Use		27	40	47	36	38	33	41	34	31	36
	Domestic Price	DR$ Per LT	89.0	115.7	125.4	143.8	201.3	280.0	417.0	471.9	550.0	556.2
	Input's Total Value @ Domestic Prices		2,427	4,600	5,953	5,160	7,689	9,115	16,896	16,264	17,234	19,749
	International Price	DR$ Per LT	80.0	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3
	Input's Total Value @ International Prices		2,181	4,140	5,953	5,160	7,689	9,115	16,896	11,628	12,322	12,155
3. NON-PRICE ASSISTANCE												
	Direct Payments		0	0	0	0	0	0	0	0	0	0
	Credit Subsidies		950	680	470	660	1,820	2,170	1,060	0	0	0
	Tax Exemptions		0	0	0	0	0	0	0	0	0	0
	Research & Extension		0	0	0	0	0	0	0	0	0	0
	Other		0	0	0	0	0	0	0	0	0	0
4. VALUE ADDED												
Assisted Value Added (Domestic Prices)			62,647.1	116,172.2	221,359.1	237,230.0	382,026.3	367,636.6	458,682.6	706,097.2	450,408.6	553,653.1
Unassisted Value Added (International Prices)			128,248.3	252,954.8	371,948.8	344,600.4	687,062.9	536,045.4	476,063.8	690,686.8	448,267.8	466,110.1
5. ERA			-51.2%	-54.1%	-40.5%	-31.2%	-44.4%	-31.4%	-3.7%	2.2%	0.5%	18.8%

Source: Surveillance Project, LATAD, 1995

CHAPTER 2

PRESENTATION AND DISCUSSION OF RESULTS

Overview

Tables 5 and 6 present a summary of the protection indicators for the Dominican Republic. For more details concerning the calculation of the NPR, EPR and PSE, see the standardized worksheets in Appendix A.

Table 5 presents a composite, exportable and importable weighted annual average for the four protection indicators. The weights are the total revenue of the commodity (valued at domestic prices) relative to the aggregate value of all commodities included in this study. The general trend regarding protection is for exportables to be negative, importables positive, and the composite showing a trend from negative estimates in the mid-1980s to positive ones at the beginning of the 1990s. This trend can be seen for all the protection indicators. Thus, the agricultural exportable sector was and continues to be taxed heavily both directly and through the input market (EPRs lower than the NPRs) while the importables have enjoyed the benefits of protection. In addition, the levels of nominal and effective protection for importables rose during the 1985-1994 period. In particular, the sharp increase in the level of protection of imports starting in 1990 should be noted.

Table 6 presents the protection estimates by commodity. Nominal protection for the traditional exports -- sugar and coffee -- has been significantly negative (<-20%) for most of the period of study. The years 1990-1993 are an exception. During this period nominal protection rates for coffee were either very low or positive. For the non-traditional export crops, i.e., cassava, tobacco and tomatoes, the results were volatile and mixed. Cassava displayed negative protection throughout most of the period examined while tobacco and tomatoes had little pattern. In some years the estimates were positive while in other years they were negative. The imports maize, red beans and rice had a high degree (>30%) of protection for most of the years. Table 6 also highlights the sharp rise in protection indicators for rice starting in 1992. In 1993 and early 1994, the Dominican Republic exported rice through other Caribbean nations to the EC at prices higher than the world price. For a graphical presentation of the results for rice see figures 9a through 9d on page 35. Overall, inspection of the results seems to indicate the presence of a very strong anti-export bias in the policies toward the agricultural sector.

Most of the commodities showed little difference between the annual NPR and EPR. In most years the domestic price of inputs was higher than the border price. However, this was not reflected in the EPR because of the low cost share of intermediate inputs relative to the value of output.

Non-price transfers were not a significant factor even though credit assistance was reported. However, its diminutive impact meant that the ERA and the EPR were similar and the PSE mainly measured the impact of price transfers; in many cases the amounts are so small they do not show up on the graphs.

Also located at the bottom of table 1 in the appendix, are average output price, output cost and returns to inputs expressed in monetary absolutes (current U.S. dollars). The effect of policies on the returns to land, labor and capital is illustrated by the EPR measures. Table 5 shows that there has been a large tax on the producers of exportable while a substantial subsidy has been given to producers of importables (mostly the food crops). Amongst the latter (on a subsidy per ton basis), rice producers captured the highest price related subsidies followed by producers of red beans and maize.

Who Received the Hidden Income Transfer?

The question remains as to which agricultural commodities benefited from the trade regimes in place during the period of the study. Previous measures of the EPR and PSE reported the implicit transfer per unit of output; here we present the absolute value of the transfer for each commodity. Figures 1a and 1b combined with table 7 present total transfers to exportables and importables. Exportables, as shown in figure 1a, were taxed with emphasis on the traditional export products coffee and sugar. For example, sugar producers in 1993 were taxed US$113 million (see table 7). Over the entire period, sugar producers have annually been taxed between US$101 and US$196 million. Coffee producers' taxes have varied even more. During the same period, coffee producers were taxed as much as US$78 million (1986) and received a small subsidy of US$11 million (1993). The non-traditional export crops -- tobacco and tomatoes -- show only small negative transfers. With the exception of 1986 and 1992, negative transfers to cassava producers have also been small.

Positive transfers were given to producers of importables with rice and red bean growers benefiting the most. For example, in 1993 rice producers received a positive transfer of approximately US$86 million while bean producers received a US$42 million transfer. The transfers have varied greatly, however, during the period of study. Rice in 1984 received a transfer of US$211 million. In 1988, rice producers were taxed US$21 million, and in 1989 rice producers were again receiving a positive transfer (US$80 million). Bean producers received positive transfers ranging from a high of US$47 million (1984) to a low of US$1.3 million (1985).

1992-93 Average Price and PSE Measures

(Current US Dollars)

	Cassava	Coffee	Sugarcane	Tobacco	Tomato	Red Beans	White Maize	Rice
Domestic Price (MT)	$170.58	$531.47	$11.20	$982.08	$296.36	$1,245.26	$217.35	$601.92
PSE Per MT	-$98.5	$70.27	-$22.68	$332.39	-$47.86	$578.23	$141.05	$485.81
PSE (%)	-76.9	13%	-202.5%	34%	-13.2%	41.5%	64.8%	81%

Note: PSE (%) are calculated from appendix tables 2c-9c, and are based on total transfers and value of production. The results cannot be duplicated using information provided in this table.

Various monetary per MT measures by commodity are presented in the table above. The first line shows the domestic price per MT of the commodity. These figures are included for comparative purposes. The second line shows the actual transfer (in US dollars) per MT of the commodity produced. Compared to domestic price, one can see how important the transfer is to the producer. The third line is the PSE (expressed as a percentage of production valued at domestic prices). Once again, this line is included for comparative purposes. For example, using the exportable coffee, the average domestic price per MT for 1992-1993 is US$531.47. The transfer (income by producers) per ton of coffee was US$70.27. Rice producers in 1992-1993 received an average price of US$601.92 per MT. The total transfer per ton to growers as measured by the PSE calculation was US$485.81. Most of this was in the form of price-related transfers. See tables 2c-9c in the appendix for more details concerning the composition of the PSEs for the individual commodities in the local currency.

TABLE 5. Dominican Republic's Weighted Average Protection Indicators

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
					COMPOSITE					
Wt. Ave. NPR	88.7	-18.4	-10.2	11.7	-28.9	-13.6	37.4	14.3	54.3	67.3
Wt. Ave. EPR	263.1	-20.7	-14.7	17.9	-29.7	-10.6	53.0	17.1	73.8	90.0
Wt. Ave. PSE	-7.01	-32.4	-29.0	-16.0	-61.6	-37.3	-2.3	-39.7	-9.9	9.0
Wt. Ave. ERA	267.2	-19.6	-13.6	19.3	-28.9	-9.0	53.0	17.1	73.8	89.8
					EXPORTABLE					
Wt. Ave. NPR	-40.6	-40.9	-28.0	-33.7	-46.6	-48.9	-31.8	-22.9	-33.4	-19.7
Wt. Ave. EPR	-47.9	-46.0	-35.8	-41.4	-52.1	-52.0	-35.2	-26.2	-38.7	-22.0
Wt. Ave. PSE	-89.8	-82.8	-64.1	-69.4	-91.1	-108.3	-70.5	-105.4	-109.6	-66.9
Wt. Ave. ERA	-47.7	-45.9	-35.7	-41.2	-51.9	-51.7	-35.2	-26.2	-38.7	-22.0
					IMPORTABLE					
Wt. Ave. NPR	230.6	6.0	23.1	67.4	6.6	31.1	105.5	51.9	122.3	143.3
Wt. Ave. EPR	604.5	6.7	24.9	90.6	15.0	41.7	139.9	60.8	160.9	187.7
Wt. Ave. PSE	83.9	22.5	36.7	49.4	-2.9	52.8	64.9	26.6	67.4	75.3
Wt. Ave. ERA	612.7	8.9	27.8	93.4	17.1	45.1	139.9	60.8	160.9	187.3

Source: Surveillance Project, LATAD, 1995

TABLE 6. Dominican Republic: Summary of Protection Indicators[a]

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
		EXPORTABLES									
Cassava											
	NPR	-35.1	-71.5	-47.9	-57.4	-36.1	-22.6	15.9	-54.9	-19.0	21.5
	EPR	-38.3	-74.4	-51.1	-60.8	-39.5	-25.4	14.6	-60.9	-22.5	20.3
	PSE	-54.1	-246.5	-83.5	-124.2	-44.8	-26.3	11.9	-127.1	-26.7	N.A.
	ERA	-38.2	-74.3	-50.8	-60.5	-38.9	-25.2	14.6	-60.9	-22.5	N.A.
Coffee											
	NPR	-49.8	-36.3	-27.7	-41.8	-29.4	-2.9	4.1	4.6	17.7	-28.4
	EPR	-54.3	-40.5	-31.5	-44.7	-31.8	-3.9	2.2	0.5	18.8	-32.5
	PSE	-92.8	-56.9	-36.9	-66.2	-33.8	-0.6	1.9	6.1	19.9	N.A.
	ERA	-54.1	-40.5	-31.2	-44.4	-31.4	-3.7	2.2	0.5	18.8	N.A.
Sugar											
	NPR	-47.8	-32.8	-51.5	-54.8	-62.6	-56.4	-74.2	-68.1	-66.2	N.A.
	EPR	-54.7	-46.9	-65.1	-63.9	-66.0	-62.0	-80.0	-75.2	-71.4	N.A.
	PSE	-97.7	-64.3	-120.7	-125.3	-166.4	-131.0	-289.1	-215.0	-190.0	N.A.
	ERA	-54.7	-46.7	-65.2	-63.9	-66.0	-62.0	-80.0	-75.2	-71.4	N.A.
Tobacco											
	NPR	61.1	92.9	27.4	-16.2	-48.0	13.5	7.0	46.2	30.4	31.8
	EPR	66.9	106.1	28.5	-17.4	-51.7	14.8	5.2	47.5	30.4	34.3
	PSE	59.0	63.5	44.8	5.4	-54.9	18.9	5.8	39.1	28.8	29.5
	ERA	68.0	106.0	29.9	-16.0	-49.8	14.1	5.2	47.5	30.4	32.4
Tomato											
	NPR	36.9	-12.8	-13.3	-26.9	11.6	36.5	-2.8	2.4	-21.1	-10.0
	EPR	41.3	-15.7	-16.6	-29.5	13.8	39.9	-4.1	1.0	-22.3	-10.9
	PSE	26.9	-16.8	-17.9	-37.6	10.8	26.5	-3.9	0.9	-27.2	-11.6
	ERA	41.3	-15.7	-16.6	-29.5	13.8	39.9	-4.1	1.0	-22.3	-10.9
		IMPORTABLES									
Corn											
	NPR	-52.4	-28.9	-21.7	71.5	34.8	45.5	143.0	226.2	194.6	85.3
	ERP	-55.2	-31.8	-24.7	84.5	42.8	56.4	162.6	282.9	229.9	91.0
	PSE	-102.2	-29.3	-21.4	47.4	31.6	32.7	56.9	67.1	62.5	N.A.
	ERA	-54.9	-27.2	-24.2	85.4	43.4	56.6	162.6	282.9	223.2	N.A.
Red Beans											
	NPR	8.5	19.7	167.8	72.2	21.6	63.6	105.8	29.9	209.7	171.7
	EPR	8.8	25.3	248.3	101.6	27.9	83.8	133.0	29.6	270.4	214.3
	PSE	6.6	14.8	61.8	42.1	18.5	39.0	47.5	18.4	64.5	N.A.
	ERA	9.9	26.1	250.0	103.2	26.8	82.0	133.0	29.6	270.4	N.A.
Rice											
	NPR	11.3	28.2	32.4	-54.2	33.8	118.9	34.1	134.8	94.3	181.7
	EPR	12.5	29.9	34.2	-61.9	45.9	158.1	38.4	180.7	128.9	292.6
	PSE	37.5	45.8	48.4	-45.7	64.5	73.0	20.1	78.3	83.7	61.1
	ERA	15.0	33.0	37.6	-59.1	50.8	158.5	38.4	180.7	128.9	292.6

a. Evaluation at the point of price determination. In most cases, unless otherwise noted, it corresponds to the processing center (mill for grain, auction center for beef, etc.).

Source: Surveillance Project, LATAD, 1995

Figure 1a. Dominican Republic's Agricultural Exports. Income Transfers Due to Price and Non-Price Intervention, 1984-1993.

Total Transfer (US$ Millions)

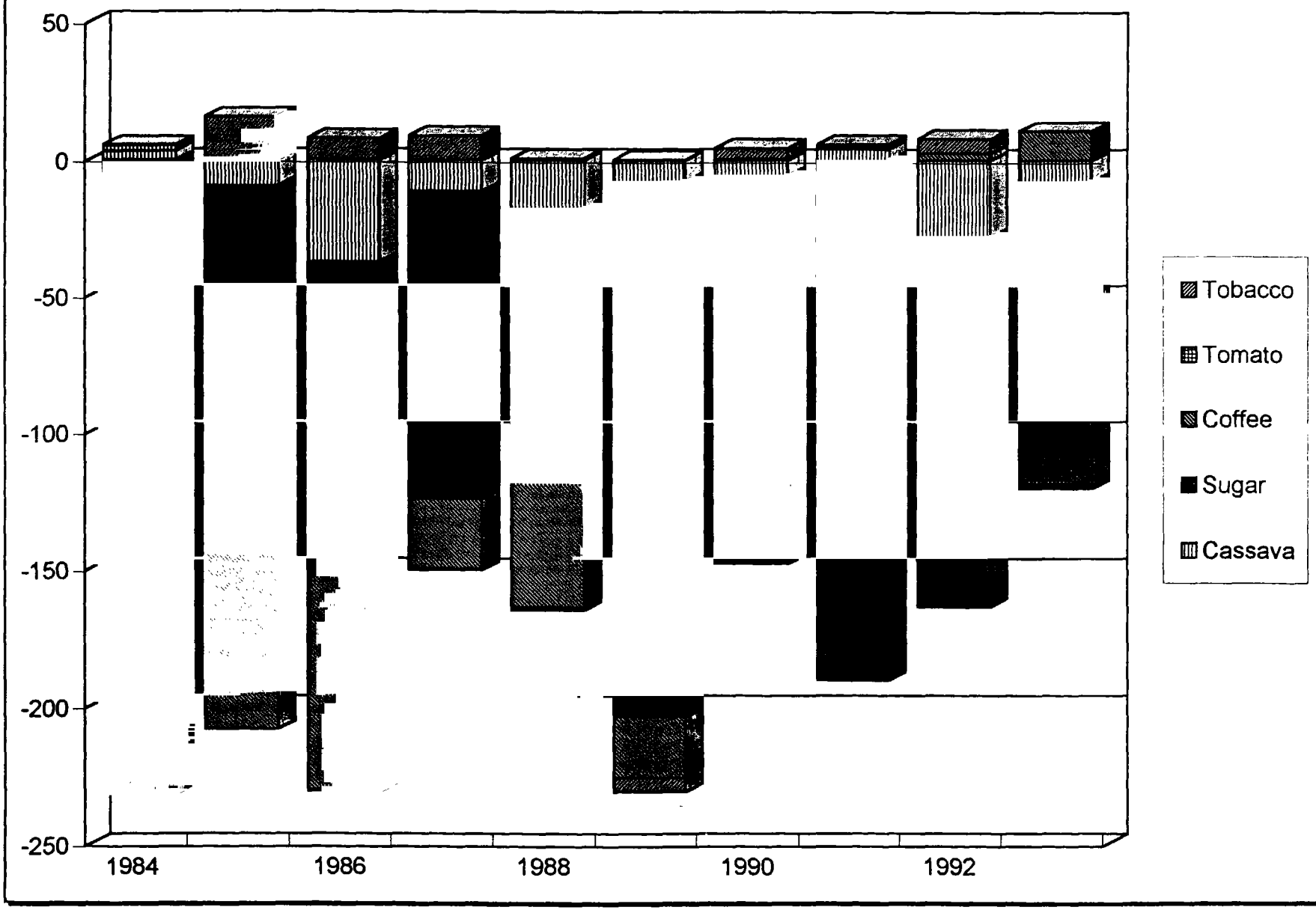


Figure 1b. Dominican Republic's Agricultural Imports. Income Transfers Due to Price and Non-Price Intervention, 1984-1993.

Total Transfer (US$ Millions)

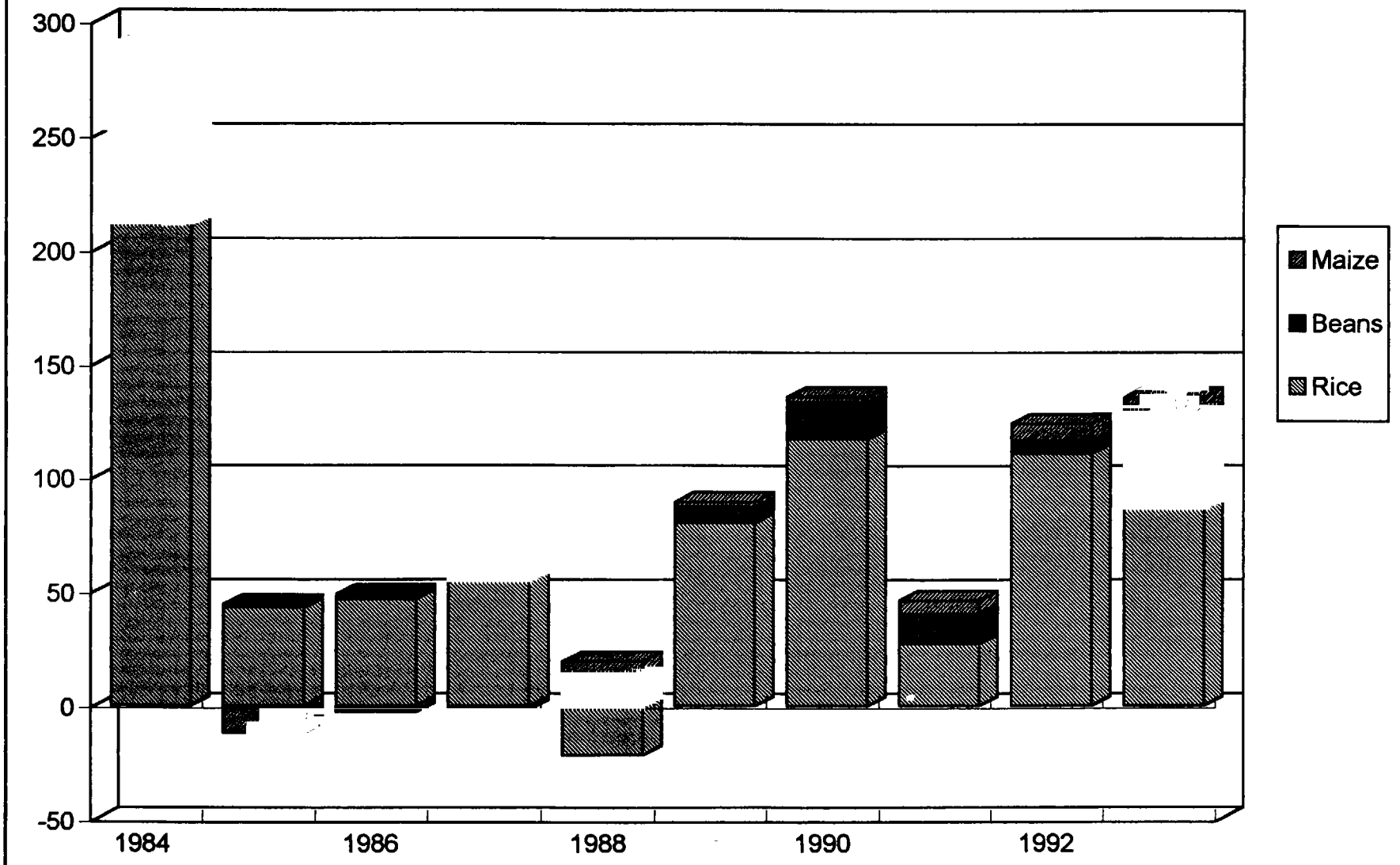


TABLE 7
DOMINICAN REPUBLIC'S
AGRICULTURAL INCOME TRANSFERS

(Expressed in current $US Millions)

Total Assistance Across All Commodities (By Program)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Market Price Support	27.23	(191.03)	(174.26)	(79.09)	(206.45)	(204.99)	(39.62)	(126.59)	(57.73)	(10.59)
Market Subsidies	0.00	(11.63)	(6.22)	(0.01)	(0.00)	(0.13)	0.00	0.00	0.00	0.00
Input Policies	(46.74)	1.54	(29.97)	(21.12)	(5.31)	2.86	(6.11)	(11.70)	(11.50)	(3.70)
Credit Assistance	82.61	41.25	34.01	40.20	45.96	61.01	38.03	0.00	37.62	42.50
Research & Extension	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Assistance	63.10	(159.87)	(176.44)	(60.02)	(165.80)	(141.24)	(7.69)	(138.29)	(31.62)	28.21

Total Assistance Across All Commodities (By Commodity)

Cassava	3.26	(9.30)	(37.22)	(11.10)	(17.25)	(7.51)	(5.35)	4.10	(27.67)	(7.40)
Sugar	(190.02)	(134.83)	(115.32)	(113.10)	(100.90)	(196.21)	(142.20)	(190.37)	(135.92)	(113.08)
Coffee	(35.79)	(64.19)	(77.59)	(25.66)	(45.73)	(22.06)	(0.39)	1.24	2.75	10.74
Rice	211.34	43.21	46.78	54.88	(21.38)	80.30	117.22	27.28	110.80	86.46
Beans	47.10	1.30	2.25	27.84	14.30	7.00	16.33	13.32	5.81	42.31
Maize	30.70	(11.63)	(2.67)	(1.33)	5.34	2.19	2.21	5.64	7.43	6.70
Tomato	2.23	0.47	(0.62)	(0.43)	(0.94)	0.21	0.47	(0.06)	0.01	(0.92)
Tobacco	(5.72)	15.10	7.96	8.88	0.76	(5.17)	4.02	0.55	5.16	3.40
Total Assistance	63.10	(159.87)	(176.44)	(60.02)	(165.80)	(141.24)	(7.69)	(138.29)	(31.62)	28.21

Source: Surveillance Project, LATAD, 1995

Individual Commodities

Cassava

Although volume has decreased from an average of 6,500 MT during the 1980s to 1,750 MT in 1991-1992, cassava has been consistently exported since the mid-1980s. Examination of the NPR in figure 2b reveals that the behavior of the indicator is typical of an export -- the NPR for most years is negative. For the most recent year, 1994, the NPR was 21.5%.

The inputs fertilizer and insecticide make up a very small proportion of the total value of the product. Therefore, the EPR differs very little from the NPR although the EPR is slightly lower than the NPR on average. For example, in 1994 the NPR was 21.5% whereas the EPR was 20.3%. This reflects the import tariff on inputs charged in many of the years.

Non-price transfers are reflected through the PSE and the ERA. For cassava, the only aid the growers received was credit assistance, and this was very small when compared to the taxation of the product itself (see figure 2c). For most years, the PSE is negative and largely reflects the pattern of price taxation from year to year. The ERA is similar to the EPR which considers only price transfers. Examining 1993 (see table 2c of the appendix), the tax on the commodity's production from market taxation totaled DR$81.4 million and through the input market totaled DR$11.1 million.

Coffee

Coffee is considered a traditional export crop and a large generator of export revenues for the Dominican Republic. Figure 3a shows that exports have been consistently between 30,000 to 35,000 metric tons. Figure 3b shows the NPR estimates which are negative for most years. However, there is a trend towards lower taxation and even protection of the commodity. Specifically, the estimate in 1985 was -49.8%, the most recent estimate, 1994, was -28.4%, while the estimates for the years 1991-1993 were positive. The negative value in the early years of the study, 1984-1986, reflects the indirect taxation program through exchange rates. After 1986, the multiple exchange rate system was eliminated.

The EPR is lower than the NPR. The domestic prices for the three included inputs -- fertilizers, fungicides and insecticides -- are higher than their border equivalent counterparts. This price difference means that producers are additionally taxed through the input market.

The PSE and ERA, which combine both price and non-price transfers, show that the price transfers (until 1991, taxes), are an important factor (see figure 3c). For example, in 1990 direct taxation of DR$16.1 million and indirect taxation through the input market of DR$2.4 million transfered money from the producers (see table 3c of the appendix). In 1993, price policies transfered DR$101 million to producers, input policies taxed the producers by DR$13.5 million and credit assistance transfered DR$46.7 million to producers. The only non-price transfer, a credit subsidy, ended in 1990. The impact of this subsidy can be seen by the difference between the EPR and the ERA for the relevant years. For most years the subsidy caused very little difference between the two indicators.

Sugar

Sugar is also considered a traditional export crop. Since the country exports to the protected market in the United States at the US domestic price, its importance as an export depends on the size of the quota shipped to the U.S. in any given year. As figure 4a demonstrates, the sugar market's importance (and the quota) have been declining since 1985. From 1980-1985, exports average approximately 800,000 MT. However, during the 1990-1992 period, exports have fallen to 300,000 MT.

The NPR has been negative throughout the period examined. Ranging from -32.8% (1986) to -74.2% (1991), these results indicate that producers have been subject to high taxation. The most recent estimate (1993) for the NPR was -66.2%. Producers are still paying a high level of tax similar to previous years.

The EPR is higher (in absolute value) than the NPR. However, this is counter-intuitive since the domestic price of inputs is slightly higher than the border price. The higher EPR can be explained by the fact that the difference between the input cost valued at domestic and border prices is very small. Therefore, the absolute difference between the output prices (domestic and border equivalent) and value-added at both domestic and border prices is very small. The base is lower in the EPR calculation causing a higher EPR estimate relative to the NPR.

The PSE is negative throughout the period of the study. All of the transfers are price-related. The most recent years studied, 1992-1993, had negative transfers of over DR$1.4 billion (see table 4c of the appendix). In addition, a smaller tax is generally imposed through the input market. For 1993, however, there was a positive transfer from the input market. Combined, this large tax burden yields a PSE of -215% in 1992 and -190% in 1993.

Since no non-price transfers are present, the EPR and ERA agree.

Tobacco

Figure 5a shows that tobacco exports have averaged around 15,000 MT annually. However, in contrast to the pattern that the traditional exports exhibited, 8 of the 11 years in the study show positive protection. In 1994, the NPR was 31.8%. Referring to figure 5d, this positive protection is mainly a reflection of the lack of agreement between domestic and border equivalent prices.

The differences between the NPR and EPR are small, averaging around 3-4 percentage points. Considering the large difference that exists between the domestic and border equivalent prices for fertilizer, this small difference between the two indicators reflects the small proportion of the inputs in relation to the value of the output (6.7%). For example, in 1994 the NPR was 31.8% while the EPR was 32.4%.

Only one non-price transfer exists for tobacco producers. This is the credit subsidy. Because of the small difference between the EPR and ERA, this subsidy is relatively insignificant when compared to the price transfers.

Tomatoes

Exports of salad tomatoes peaked in 1986 (see figure 6a) and have been declining ever since. The pattern that the NPR exhibits is related to the level of exports for that particular year.

During high export periods, the NPR was in the range of -20%. However, in years where the export level was lower (1985 and 1989-1991) the NPRs were positive or close to zero.

The EPR is generally about the same as the NPR. This reflects the low cost share of the inputs in relation to the value of the commodity (10%).

Non-price transfers are very small or non-existent. Thus, the EPR and the ERA are very similar and the PSE reflects price transfers as opposed to non-price transfers.

Maize

The Dominican Republic has been a consistent importer of maize since 1980. In recent years (1987-1991), imports have averaged 400,000 MTs. Nominal protection and levels of imports seem to be correlated (figures 7a and 7b). During higher import periods (1984 and 1988-1991) protection is significantly positive (greater than 30%). During lower import periods protection is negative. Also following a similar pattern is the relationship of domestic and border prices. When imports are high, domestic price exceeds the border equivalent price. However, in years with lower imports, the border equivalent price is

higher than the domestic price. These relationships may reflect government intervention to support the price for maize. It was the policy of the government to work towards self-sufficiency. Thus, the government, working through its marketing arm INESPRE, attempted to maintain the domestic price above the international price.

In general, the EPR and NPR show very little difference. Although some differences exist between the domestic and border price of the two inputs -- fertilizer and insecticide -- the cost share of the inputs in relation to the value of the output is small.

Non-price transfers consist of credit assistance. However, the amount is very small compared to the price transfers. Table 8c of the appendix illustrates this. Using 1993 as an example, the positive transfer through the market price was DR$90.5 million while a tax of DR$4 million existed through the input market. The net result in terms of the PSE was an estimate of 62.5%.

The ERA is similar to the EPR and the PSE reflects the price transfers.

Red Beans

Imports of red beans have been increasing since 1984. During 1992, a total of 20,000 MT was imported despite the government policy during this period to work towards self-sufficiency. Nominal protection has been significantly positive (>50%) for most of the period of study. In 1994, the estimate for the NPR was 171.7%. Most of the protection is reflected by the level of the domestic price which the government (and its marketing arm INESPRE) maintained above the international price. This is reflected in figure 8d.

The EPR is higher than the NPR. The higher EPR can be explained by the fact that the difference between the input cost, valued at both domestic and border prices, is very small and tradable inputs represent only about 3% of cost. Therefore, the absolute difference between the output prices (domestic and border equivalent) and value-added at both domestic and border prices remains similar. However, the base is lower in the EPR calculation causing a higher EPR estimate relative to the NPR.

Credit assistance is the only non-price transfer, and its impact is small compared with the price transfers. Since its influence is minimal, the ERA and the EPR are similar and the PSE mainly reflects the price transfers.

Rice

Imports of rice have been sporadic. In some years (for example 1986 to 1987 and 1990) the level of imports has been high (>30,000 MTs). In other years imports have been small or non-existent. This erratic trade behavior indicates that in successful harvest years, the Dominican Republic is self-sufficient, and during poorer years the country must import

to compensate for the losses in domestic production. While we have treated rice as an importable for the whole period of the study, in 1993 and early 1994 rice was actually exported to Europe.

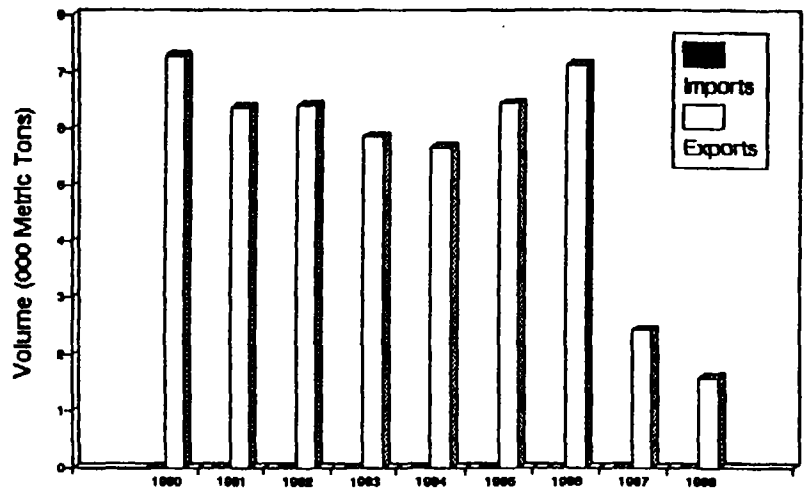
Although the level has varied, nominal protection has been significantly positive (>30%) for most of the study period. In some years the level reaches as high as 100% or above while in other years it averages around 30% (one year it was negative). In general, the NPR is higher in years where little or none of the product is imported and when the product is exported. This behavior is unusual because it implies that during years of self-sufficiency the price is higher than in years during which the country imports. For 1990 and 1991, figure 9a shows very little imports. However, the NPR estimate was 118.9%. In the following year, 1991, imports were 250,000 MT and the NPR estimate was 34.1%.

The domestic price for inputs used in rice production is usually higher than its comparable border price. However, the total cost share of the inputs relative to the value of output is small (approximately 0.3%). As a result, the difference between the NPR and the EPR is not very large for most years.

Since the credit subsidy was eliminated in 1990, non-price transfers do not exist, and the PSE estimate is determined by price transfers. The most recent year, 1994, is an example. The price transfer through the market price accounted for DR$735 million while the input market taxed the producer DR$39.3 million. Combined, these two transfers resulted in a net transfer of DR$695.7 million and a PSE estimate of 61.1%.

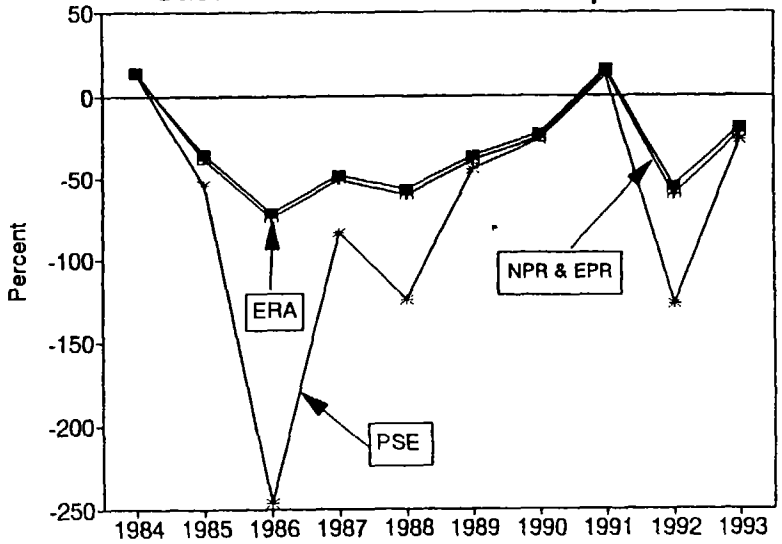
After the elimination of the credit subsidy in 1990, the ERA and EPR are the same implying no non-price transfers.

Figure 2a. Imports / Exports of Cassava Dominican Republic



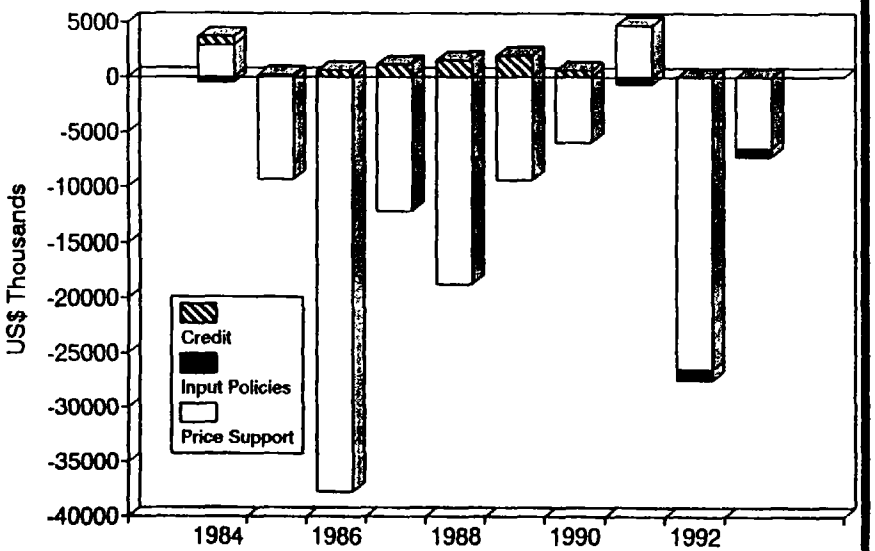
Source: FAO Tradebook, various years.

Figure 2b. Protection Indicators for Cassava in the Dominican Republic



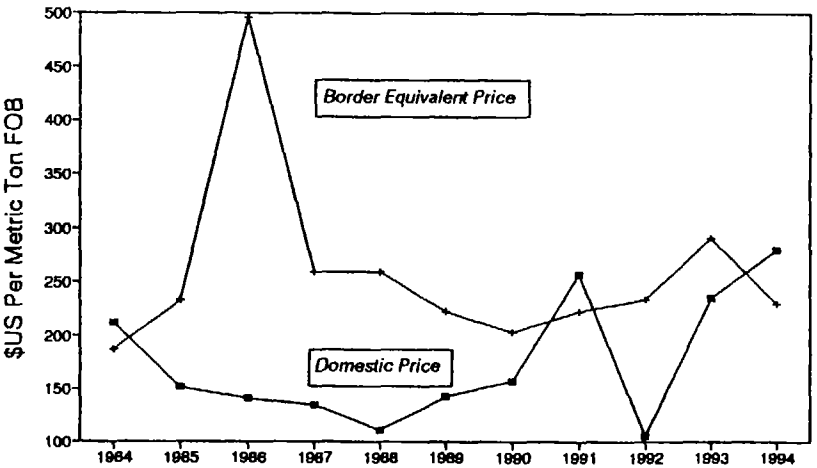
Source: Surveillance Project, LATAD, 1995.

Figure 2c. Cassava Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

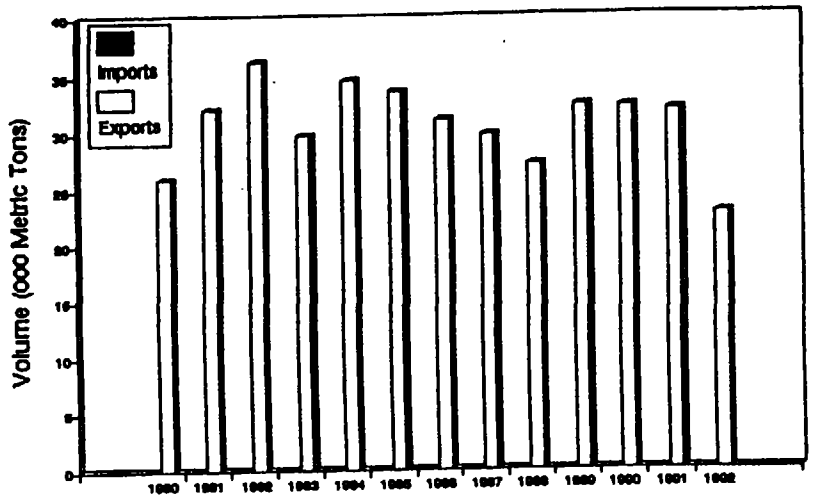
Figure 2d. Dominican Republic's Border Equivalent and Domestic Cassava Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

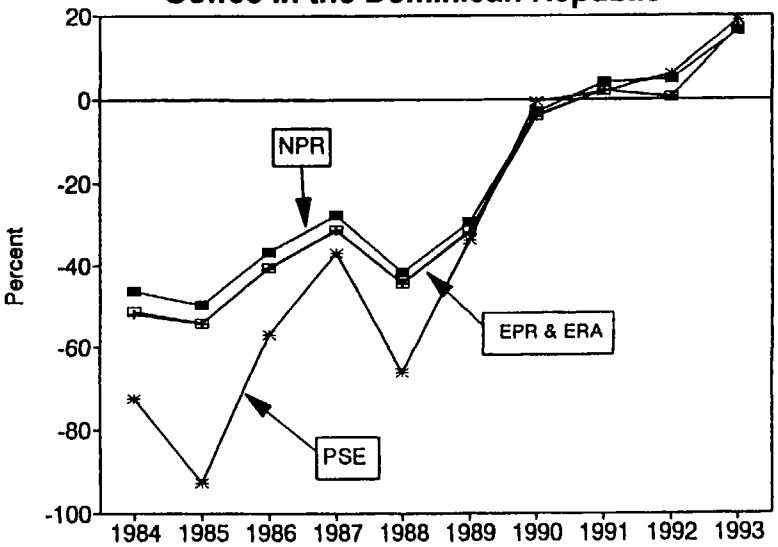
Source: Surveillance Project, LATAD, 1995.

Figure 3a. Imports / Exports of Coffee Dominican Republic



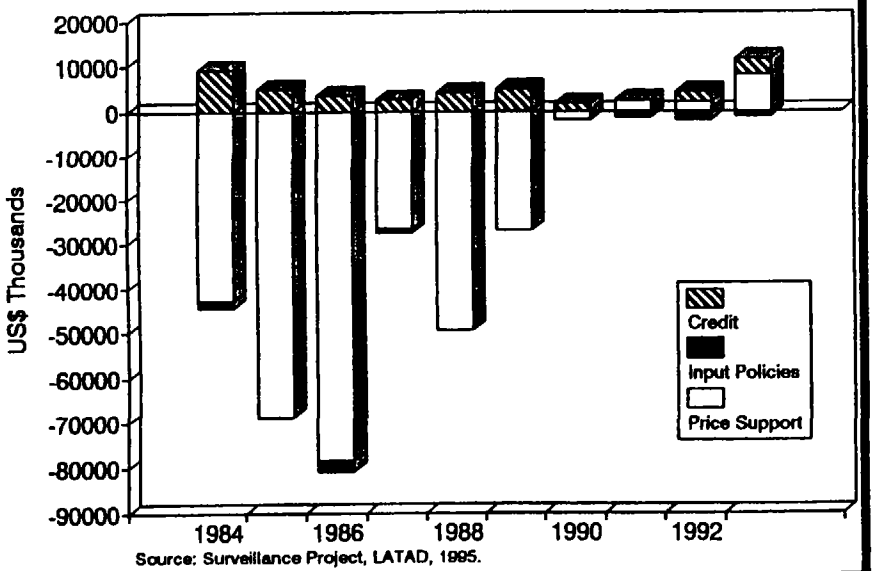
Source: FAO Tradebook, various years.

Figure 3b. Protection Indicators for Coffee in the Dominican Republic



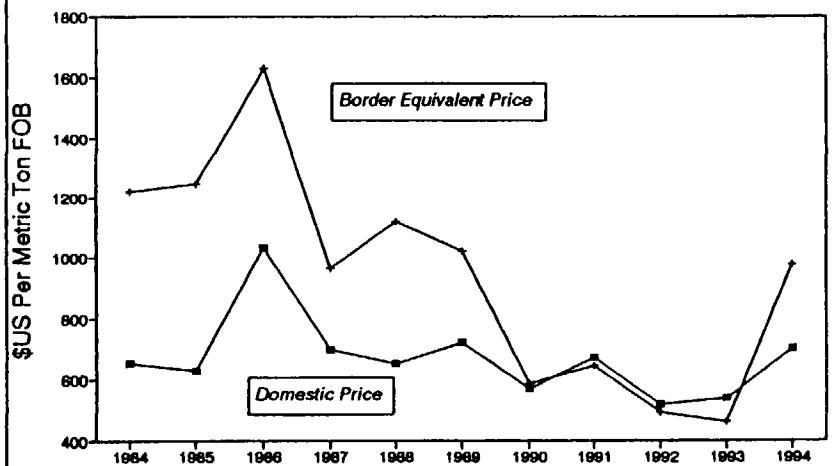
Source: Surveillance Project, LATAD, 1995.

Figure 3c. Coffee Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

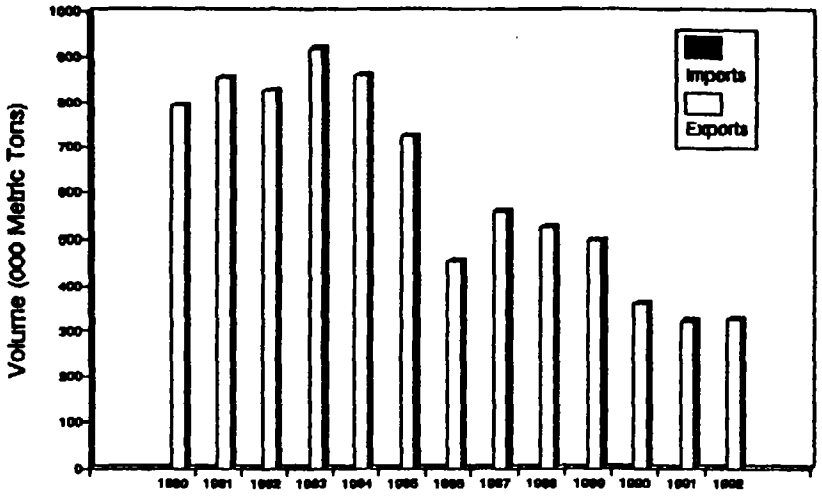
Figure 3d. Dominican Republic's Border Equivalent and Domestic Coffee Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

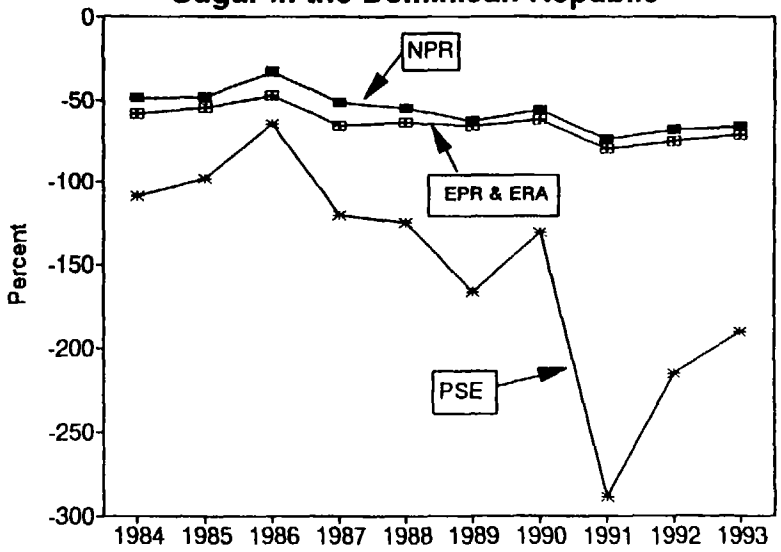
Source: Surveillance Project, LATAD, 1995.

Figure 4a. Imports / Exports of Sugar Dominican Republic



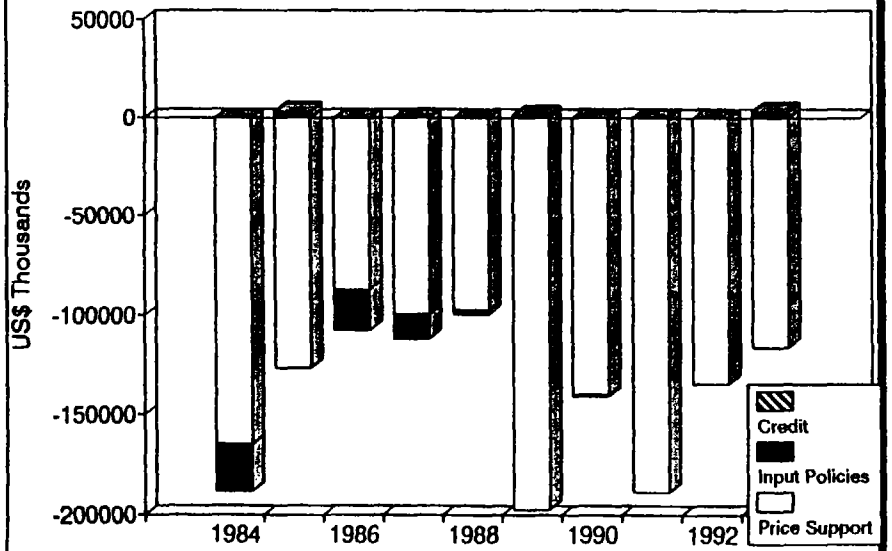
Source: FAO Tradebook, various years.

Figure 4b. Protection Indicators for Sugar in the Dominican Republic



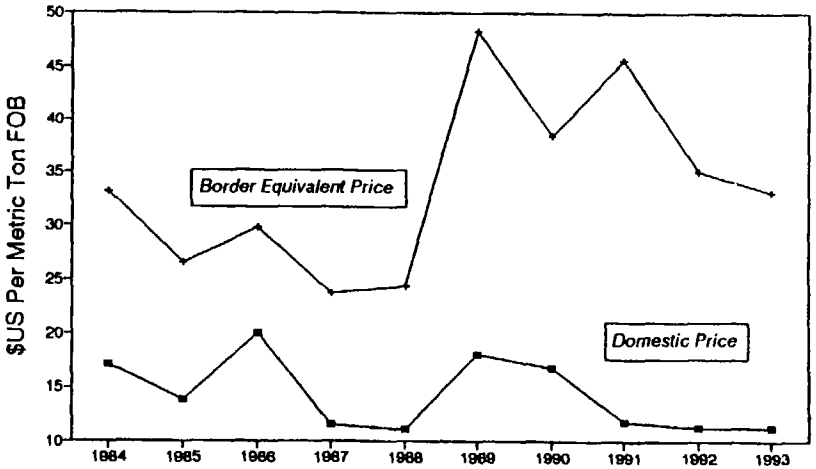
Source: Surveillance Project, LATAD, 1995.

Figure 4c. Sugar Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

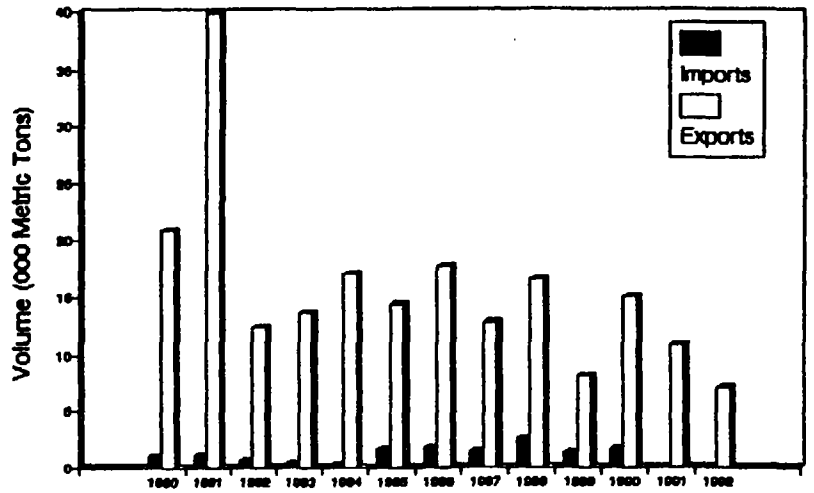
Figure 4d. Dominican Republic's Border Equivalent and Domestic Sugarcane Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

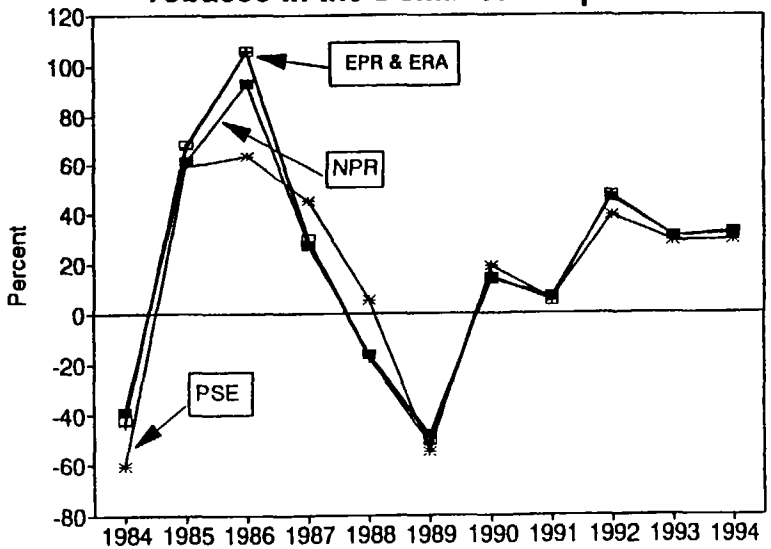
Source: Surveillance Project, LATAD, 1995.

Figure 5a. Imports / Exports of Tobacco Dominican Republic



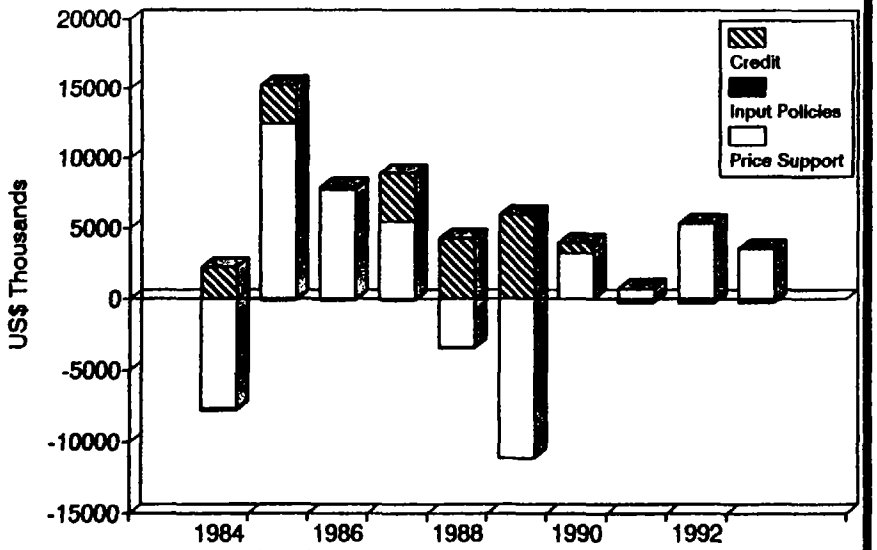
Source: FAO Tradebook, various years.

Figure 5b. Protection Indicators for Tobacco in the Dominican Republic



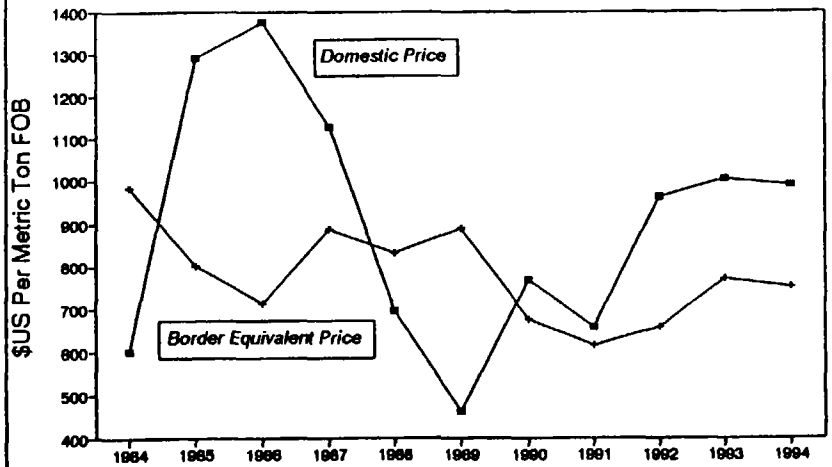
Source: Surveillance Project, LATAD, 1995.

Figure 5c. Tobacco Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

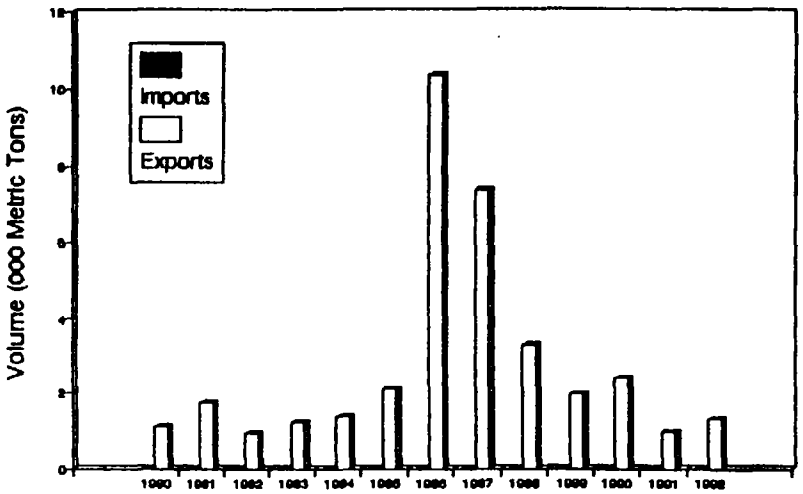
Figure 5d. Dominican Republic's Border Equivalent and Domestic Tobacco Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

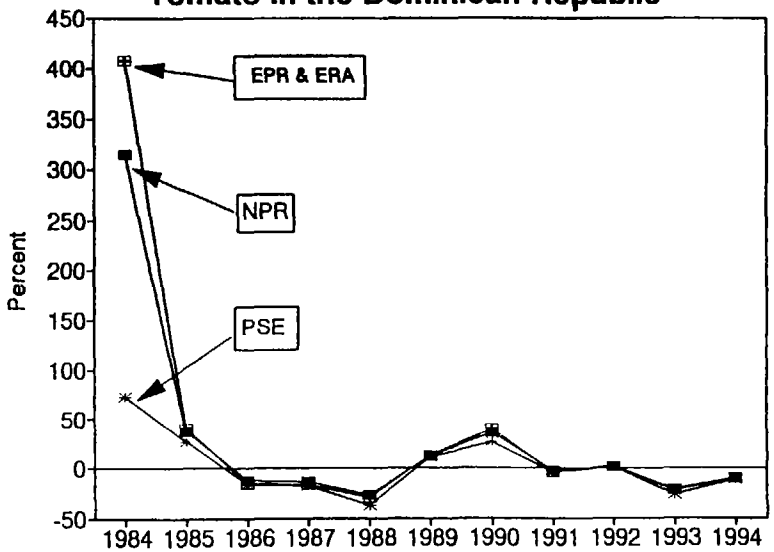
Source: Surveillance Project, LATAD, 1995.

Figure 6a. Imports / Exports of Tomato Dominican Republic



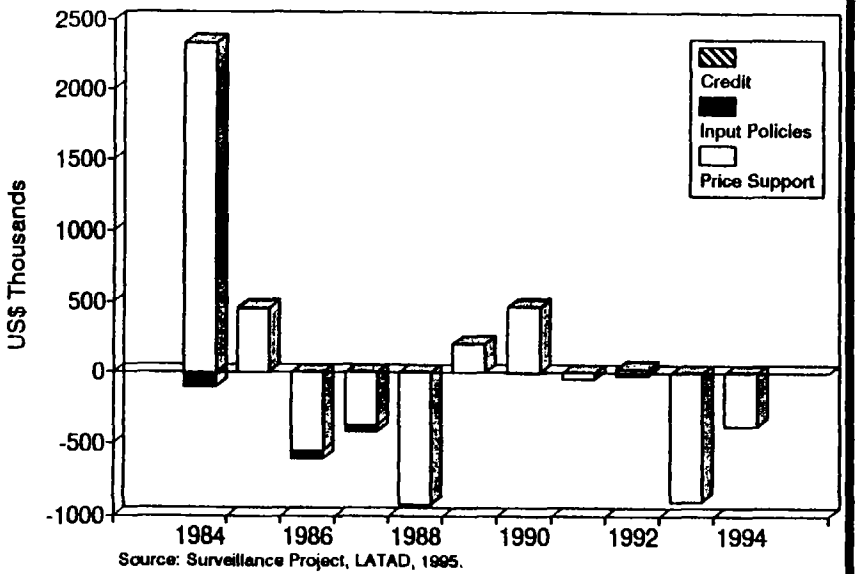
Source: FAO Tradebook, various years.

Figure 6b. Protection Indicators for Tomato in the Dominican Republic



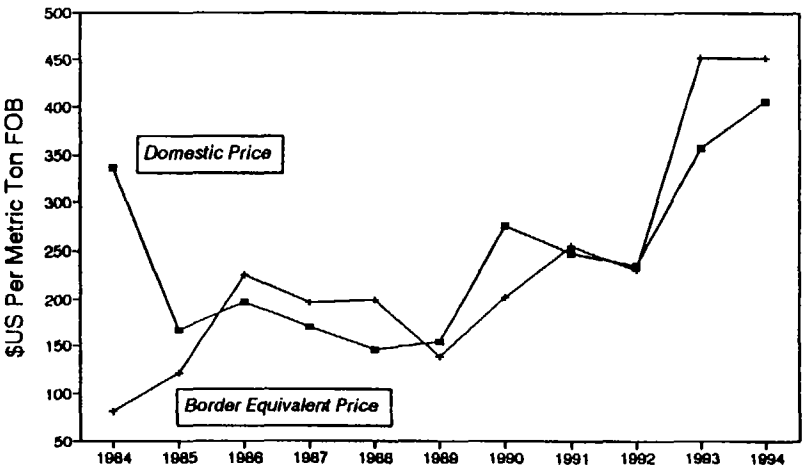
Source: Surveillance Project, LATAD, 1995.

Figure 6c. Tomato Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

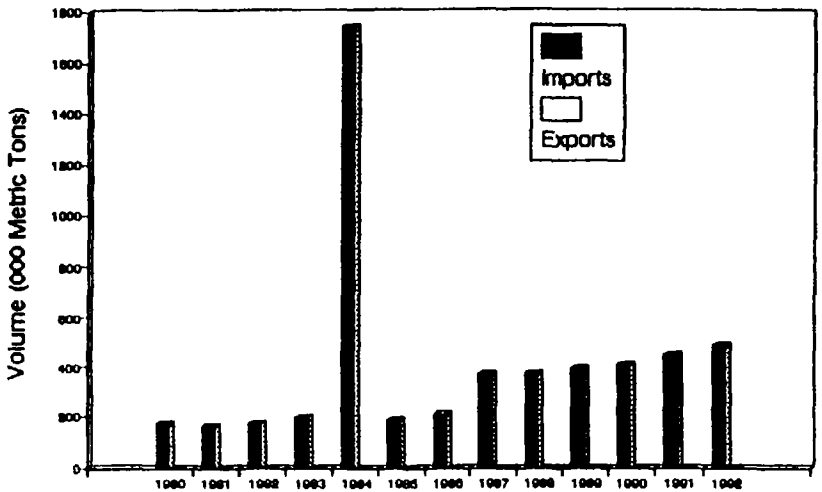
Figure 6d. Dominican Republic's Border Equivalent and Domestic Tomato Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

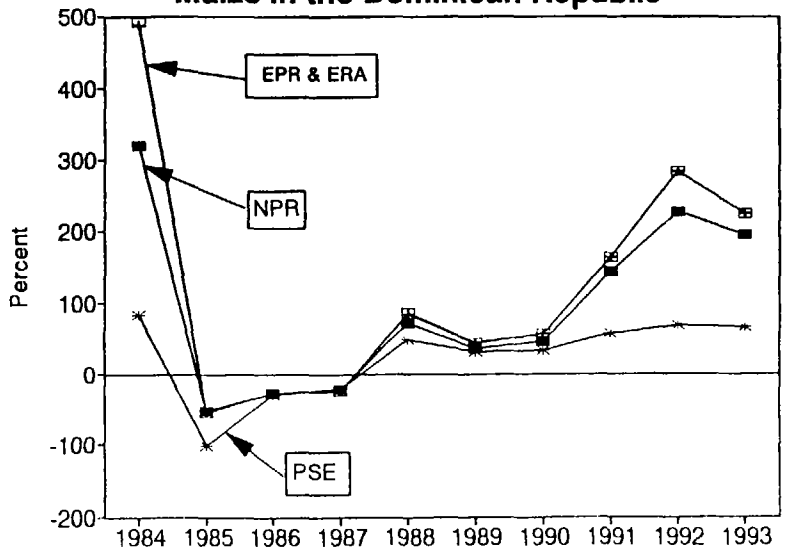
Source: Surveillance Project, LATAD, 1995.

Figure 7a. Imports / Exports of Maize Dominican Republic



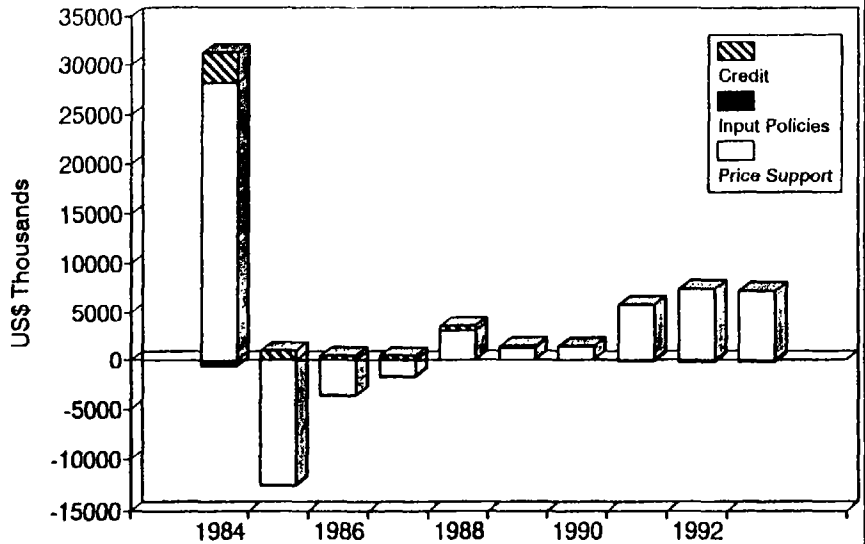
Source: FAO Tradebook, various years.

Figure 7b. Protection Indicators for Maize in the Dominican Republic



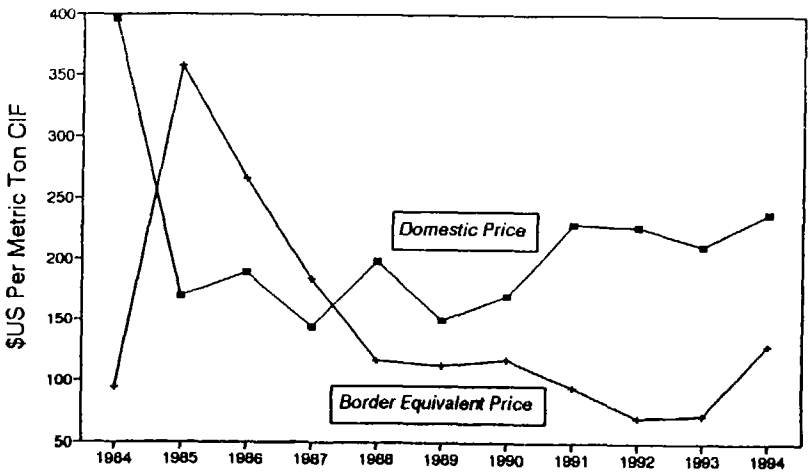
Source: Surveillance Project, LATAD, 1995.

Figure 7c. Maize Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

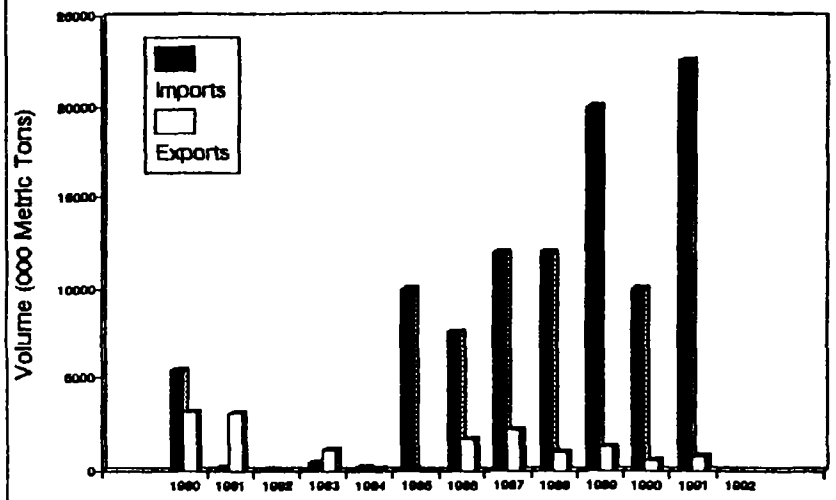
Figure 7d. Dominican Republic's Border Equivalent and Domestic Maize Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

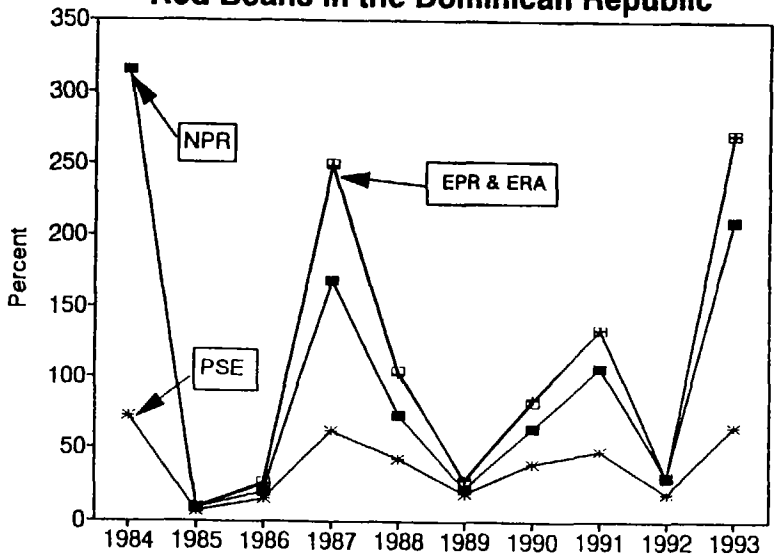
Source: Surveillance Project, LATAD, 1995.

Figure 8a. Imports / Exports of Beans Dominican Republic



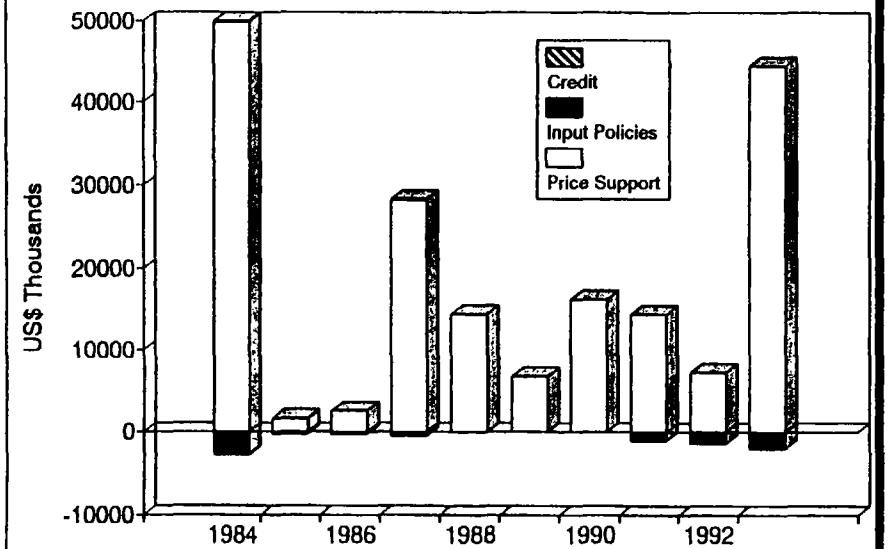
Source: FAO Tradebook, various years.

Figure 8b. Protection Indicators for Red Beans in the Dominican Republic



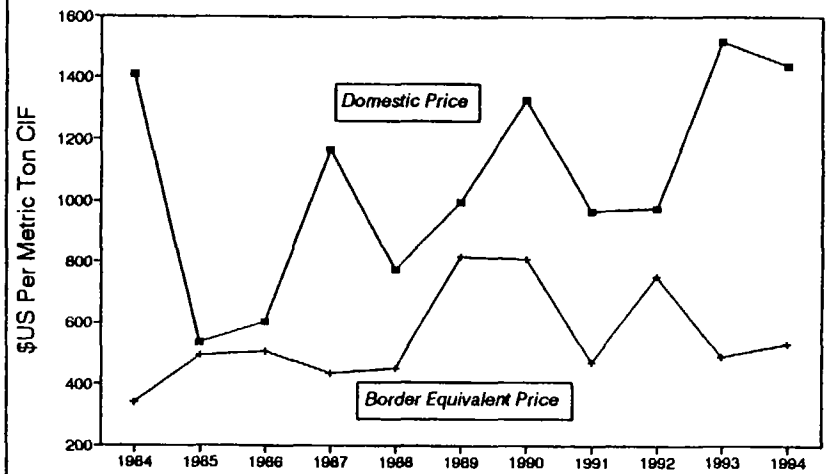
Source: Surveillance Project, LATAD, 1995.

Figure 8c. Bean Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

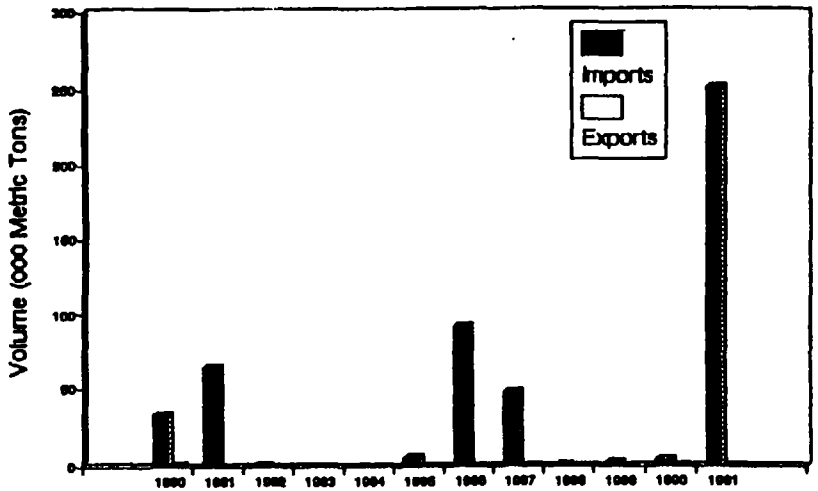
Figure 8d. Dominican Republic's Border Equivalent and Domestic Red Bean Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

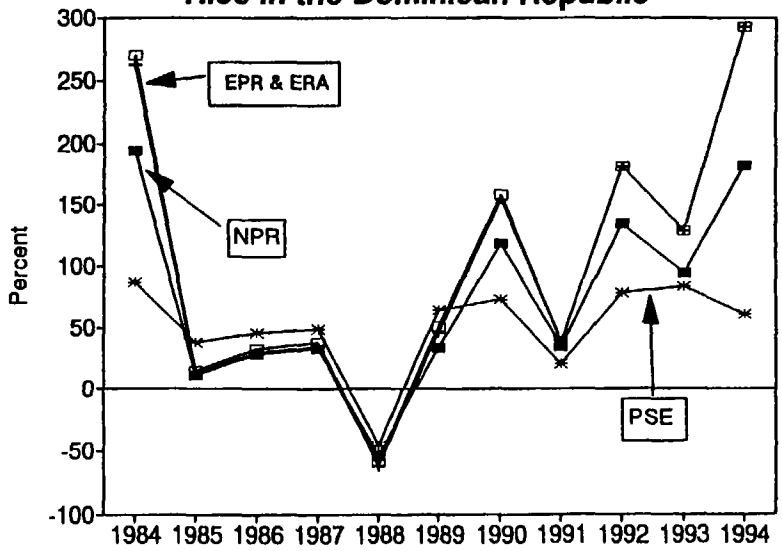
Source: Surveillance Project, LATAD, 1995.

Figure 9a. Imports / Exports of Rice Dominican Republic



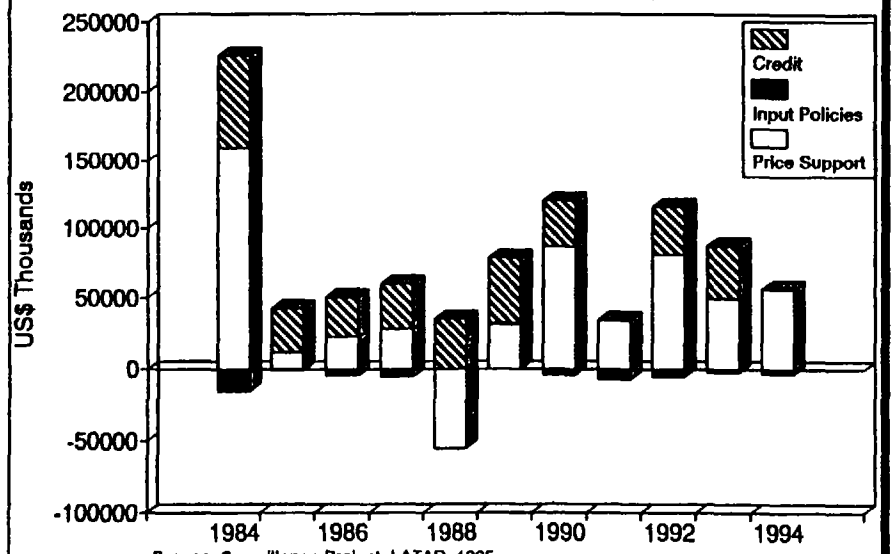
Source: FAO Tradebook, various years.

Figure 9b. Protection Indicators for Rice in the Dominican Republic



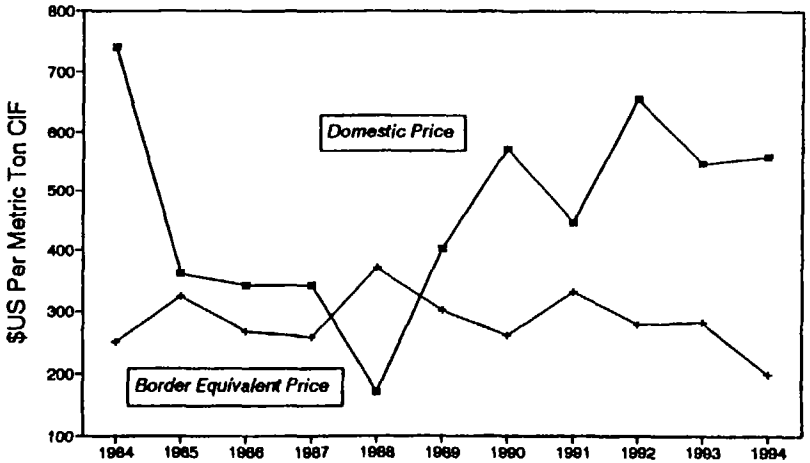
Source: Surveillance Project, LATAD, 1995.

Figure 9c. Rice Producer's Income Transfers in Dominican Republic



Source: Surveillance Project, LATAD, 1995.

Figure 9d. Dominican Republic's Border Equivalent and Domestic Rice Price



Note: Both prices measured at the point of competition. Border Equivalent Price is what the domestic price would be without intervention.

Source: Surveillance Project, LATAD, 1995.

APPENDIX A

COMMODITY CHARTS AND PROTECTION INDICATOR CALCULATION TABLES

Appendix A presents standardized tables which provide detailed information on the calculation of the protection indicators for each commodity included in the study. The processed data used in the tables are based on the raw data series provided by the collaborator. Please note that the figures presented in the tables are rounded and that replicating the results using the tables may yield slightly different numbers due to such rounding. Throughout the Handbook, numbers appearing in parentheses denote negative values.

TABLE A-1
1991-92 AVERAGE INPUT SHARES AND COST STRUCTURE FOR THE DOMINICAN REPUBLIC

	EXPORTABLES					IMPORTABLES		
	Cassava	Coffee	Sugarcane	Tobacco	Tomato	Red Beans	White Maize	Rice
	(Expressed in Percent of Output Value)							
Fertilizer	0.4%	6.5%	28.4%	1.7%	4.5%	3.7%	1.4%	11.2%
Insecticide	12.4%	2.7%		4.0%	2.0%	13.1%	7.2%	1.9%
Herbicide								
Fungicide		4.3%		1.8%	0.9%	1.2%		0.2%
Total Cost	12.8%	13.5%	28.4%	7.5%	7.4%	18.0%	8.6%	13.3%
Returns to Land Labor & Capital	87.2%	86.5%	71.6%	92.5%	92.6%	82.0%	91.4%	86.7%
	(Expressed in Nominal U.S. Dollars)							
Output Price Per Ton	$181	$567	$11	$806	$241	$966	$227	$435
Cost Per Ton of Output	$18	$75	$3	$58	$18	$175	$20	$94
Returns to Land, Labor & Capital Per Ton	$163	$492	$8	$748	$223	$792	$208	$341

Note: Our classification of cost was originally constructed for use in calculating the EPRs, and thus only includes the tradable component.

Source: Surveillance Project, LATAD, 1995

TABLE A-2a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Cassava | Point of Competition: Border

			1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE												
	Exchange Rate	$DR Per US$	3.1	2.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5	12.9
	Border Price	$US FOB Ton	273.3	534.4	323.6	306.4	283.1	268.8	265.4	280.0	340.3	284.3
	Border Price in Local Currency		849.8	1,551.9	1,242.7	1,880.9	1,791.8	2,258.3	3,291.0	3,500.0	4,253.4	3,653.0
2. BORDER ADJUSTMENTS												
	Tariffs/Subsidies	(a)	(254.3)	(1,027.6)	(478.0)	(915.6)	(508.4)	(386.5)	438.7	(1,608.0)	(691.1)	637.5
	Port Charges											
	Storage/Handling/Loss											
	Border Price Equivalent (with intervention)		595.5	524.3	764.7	965.4	1,283.5	1,871.8	3,729.6	1,892.0	3,562.3	4,290.5
	Border Price Equivalent (without intervention)		849.8	1,551.9	1,242.7	1,880.9	1,791.8	2,258.3	3,291.0	3,500.0	4,253.4	3,653.0
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)												
	Taxes/Subsidies											
	Transportation											
	Other											
	Border Price Equivalent after Processing (with intervention)		595.5	524.3	764.7	965.4	1,283.5	1,871.8	3,729.6	1,892.0	3,562.3	4,290.5
	Border Price Equivalent after Processing (without intervention)		849.8	1,551.9	1,242.7	1,880.9	1,791.8	2,258.3	3,291.0	3,500.0	4,253.4	3,653.0
4. PROCESSING (WHOLESALE MARKET)												
	Taxes/Subsidies											
	Processing Costs											
	Marketing Margins		(126.1)	(114.8)	(244.0)	(286.7)	(381.9)	(550.2)	(536.9)	(572.0)	(617.8)	(691.9)
	Conversion		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Border Price Equivalent before Processing (with intervention)		469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.6
	Border Price Equivalent before Processing (without intervention)		723.8	1,437.1	998.7	1,594.3	1,409.9	1,708.0	2,754.1	2,928.0	3,635.6	2,961.1
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR												
	Taxes/Subsidies											
	Transportation											
	Other											
	Border Price Equivalent at Collection Point (with intervention)		469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.6
	Border Price Equivalent at Collection Point (without intervention)		723.8	1,437.1	998.7	1,594.3	1,409.9	1,708.0	2,754.1	2,928.0	3,635.6	2,961.1
6. DOMESTIC PRICE	Border											
	Wholesale		469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.6
	Collection Point (Farm)		469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.6
7. NPR	Border		-29.9%	-66.2%	-38.5%	-48.7%	-28.4%	-17.1%	13.3%	-45.9%	-16.2%	17.5%
	Wholesale		-35.1%	-71.5%	-47.9%	-57.4%	-36.1%	-22.6%	15.9%	-54.9%	-19.0%	21.5%
	Collection Point (Farm)											

a. Tariffs and subsidies not specified.

Source: Surveillance Project, LATAD, 1995

TABLE A-2b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic
Commodity: Cassava
Type: Exportable
Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	211.4	469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.5
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			211.4	469.5	409.4	520.7	678.7	901.6	1,321.5	3,192.8	1,320.0	2,944.5	3,598.5
Border Price Equivalent		$DR Per MT	186.5	723.8	1,437.1	998.7	1,594.3	1,409.9	1,708.0	2,754 1	2,928.0	3,635.6	2,961.1
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			186.5	723.8	1,437.1	998.7	1,594.3	1,409.9	1,708.0	2,754.1	2,928.0	3,635.6	2,961 1
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Domestic Price	DR$ Per MT	458.40	576.50	913.80	1251.10	1588.40	1834.05	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		0 1	0.1	0.2	0.2	0.3	0.3	0.5	0.7	0.7	0.6	0.7
	Border Price Eq. Price	DR$ Per MT	608.5	631.8	551.8	745.0	1,362.9	1,405.3	1,864.8	3,865.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.7	0.7	0.7	0.7
Insecticide	Quantity	LT Per MT of Output	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
	Domestic Price	DR$ Per LT	89.00	116.70	125.70	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		39.2	50.9	55.3	63.3	88.6	123.2	183.5	207.6	242.0	244.7	202.8
	Border Price Eq. Price	DR$ Per LT	80.10	104.13	125.35	143.75	201.25	280.00	417.00	337.37	393.25	342.30	312.98
	Border Price Eq. Cost		35 2	45.8	55.2	63.3	88.6	123.2	183.5	148 4	173.0	150.6	137.7
Total Direct Inputs (Domestic Prices)			39.2	51.0	55.5	63 5	88.8	123.5	184.0	208.3	242.7	245.3	203.5
Total Direct Inputs (Border Price)			35.4	45.9	55.3	63.4	88.8	123.4	183.8	149.1	173.7	151.3	138.4
3. TRADABLE INDIRECT INPUTS													
	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		172.2	418.5	354.0	457.3	589.9	778.1	1,137.6	2,984.4	1,077.3	2,699.2	3,395.0
	At International Prices		151.1	677.9	1,381.8	935.3	1,505.5	1,286.5	1,524.2	2,605.0	2,754.3	3,484.3	2,822.7
Direct & Indirect Inputs	At Domestic Prices		172.2	418.5	354.0	457.3	589 9	778.1	1,137.6	2,984.4	1,077.3	2,699.2	3,395.0
	At International Prices		151.1	677.9	1,381.8	935.3	1,505.5	1,286.5	1,524.2	2,605.0	2,754.3	3,484.3	2,822.7
5. EPR			13.9%	-38.3%	-74.4%	-51.1%	-60.8%	-39.5%	-25.4%	14.6%	-60.9%	-22.5%	20.3%

Source: Surveillance Project, LATAD, 1995

TABLE A-3a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic Type: Exportable
Commodity: Coffee Point of Competition: Border

			1986	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE												
	Exchange Rate	$DR Per US$	2.0	1.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5	12.9
	Border Price	$US FOB Ton Green	2,807.2	3,639.5	2,153.0	2,481.9	2,320.3	1,430.0	1,556.5	1,240.0	1,190.8	2,301.2
	Border Price in Local Currency		5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,885.0	29,571.0
2. BORDER ADJUSTMENTS												
	Tariffs/Subsidies/Adjustments	(a)	(2,609.1)	(2,330.8)	(2,168.3)	(6,046.1)	(4,036.5)	(304.0)	692.5	607.4	2,180.5	(7,582.8)
	Port Charges											
	Storage/Handling/Loss											
	Border Price Equivalent (with intervention)		2,977.3	4,424.1	6,109.5	9,067.7	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Border Price Equivalent (without intervention)		5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,885.0	29,571.0
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)												
	Tariffs/Subsidies/Adjustments											
	Transportation											
	Other											
	Border Price Equivalent after Processing (with intervention)		2,977.3	4,424.1	6,109.5	9,067.7	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Border Price Equivalent after Processing (without intervention)		5,586.3	6,754.8	8,277.8	15,113.8	14,687.7	12,012.0	19,300.6	15,500.0	14,885.0	29,571.0
4. PROCESSING COST (WHOLESALE MARKET)												
	Tariffs/Subsidies/Adjustments											
	Processing Costs		(165.1)	(180.0)	(210.0)	(303.3)	(441.0)	(703.3)	(1,076.6)	(1,108.0)	(1,196.6)	(1,340.5)
	Marketing Margins											
	Other											
	Conversion	(b)	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	Border Price Equivalent before Processing (with intervention)		1,246.5	1,917.6	2,686.6	3,995.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Border Price Equivalent before Processing (without intervention)		2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR												
	Tariffs/Subsidies/Adjustments											
	Transportation											
	Other											
	Border Price Equivalent at Collection Point (with intervention)		1,246.5	1,917.6	2,686.6	3,995.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Border Price Equivalent at Collection Point (without intervention)		2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
6. DOMESTIC PRICE	Border		2,977.3	4,424.1	6,109.5	9,067.7	10,649.2	11,708.0	19,993.1	16,107.4	17,065.5	21,988.2
	Wholesale		1,246.5	1,917.6	2,686.6	3,995.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
	Collection Point (Farm)		1,246.5	1,917.6	2,686.6	3,995.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
7. NPR	Border		-46.7%	-34.5%	-26.2%	-40.0%	-27.5%	-2.5%	3.6%	3.9%	14.6%	-25.6%
	Wholesale		-49.8%	-36.6%	-27.7%	-41.8%	-29.4%	-2.9%	4.1%	4.6%	17.7%	-28.4%
	Collection Point (Farm)											

a. Represents an export tax.
b. Represents a conversion ratio of cherry to green coffee of 47.4%

Source: Surveillance Project, LATAD, 1995

TABLE A-3b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Coffee | Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			967.9	1,246.4	1,924.4	2,681.6	3,996.9	4,564.1	4,799.5	8,320.2	6,462.5	6,824.2	8,994.0
Border Price Equivalent		$DR Per MT	1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			1,804.7	2,483.5	3,022.6	3,714.7	6,862.4	6,462.2	4,942.4	7,994.7	6,177.0	5,799.4	12,557.9
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	Domestic Price	DR$ Per MT	458.40	576.50	913.80	1249.54	1588.40	1630.64	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		50.4	63.4	100.5	137.4	174.7	179.4	305.6	446.4	447.7	360.6	423.5
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		18.8	69.5	60.6	81.9	149.9	191.5	284.6	424.1	426.3	429.0	445.3
Fungicide	Quantity	Lb Per MT of Output	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56
	Domestic Price	DR$ Per Lb	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		70.9	95.7	104.3	119.9	167.4	241.9	278.0	329.2	642.1	650.5	667.2
	Border Price Eq. Price	DR$ Per Lb	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		63.8	86.1	104.3	119.9	167.4	241.9	278.0	235.4	459.1	521.8	530.1
Insecticide	Quantity	LT Per MT of Output	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
	Domestic Price	DR$ Per LT	89.00	115.70	125.70	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		32.0	41.7	45.3	51.8	72.5	100.8	150.1	169.9	198.0	200.2	166.0
	Border Price Eq. Price	DR$ Per LT	80.0	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		28.8	37.5	45.1	51.8	72.5	100.8	150.1	121.5	141.6	123.2	112.7
Total Direct Inputs (Domestic Prices)			153.4	200.8	250.0	309.1	414.5	522.0	733.7	945.4	1,287.8	1,211.3	1,256.7
Total Direct Inputs (Border Price)			111.5	193.1	210.0	253.6	389.7	534.1	712.7	780.9	1,026.9	1,074.0	1,088.0
3. TRADABLE INDIRECT INPUTS													
	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		814.6	1,045.7	1,674.4	2,372.5	3,582.3	4,042.0	4,065.8	7,374.8	5,174.7	5,612.9	7,737.3
	At International Prices		1,693.3	2,290.4	2,812.6	3,461.1	6,472.7	5,928.0	4,229.7	7,213.8	5,150.1	4,725.4	11,469.9
Direct & Indirect Inputs	At Domestic Prices		814.6	1,045.7	1,674.4	2,372.5	3,582.3	4,042.0	4,065.8	7,374.8	5,174.7	5,612.9	7,737.3
	At International Prices		1,693.3	2,290.4	2,812.6	3,461.1	6,472.7	5,928.0	4,229.7	7,213.8	5,150.1	4,725.4	11,469.9
5. EPR			-51.9%	-54.3%	-40.5%	-31.5%	-44.7%	-31.8%	-3.9%	2.2%	0.5%	18.8%	-32.5%

Source: Surveillance Project, LATAD, 1995

TABLE A-4a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic
Commodity: Sugar
Type: Exportable
Point of Competition: Border

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1. UNADJUSTED BORDER PRICE												
	Exchange Rate	$DR Per US$	1.5	2.0	1.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5
	Border Price	$US FOB Ton	328.2	264.6	298.0	233.7	239.7	471.0	379.2	448.4	347.6	330.1
	Border Price in Local Currency		485.7	526.5	553.0	898.4	1,471.6	2,981.3	3,185.4	5,560.0	4,344.8	4,126.1
2. BORDER ADJUSTMENTS												
	Tariffs/Subsidies	(a)	(226.6)	(240.1)	(172.4)	(446.1)	(781.1)	(1,820.6)	(1,732.0)	(4,001.6)	(2,842.9)	(2,606.8)
	Port Charges											
	Storage/Handling/Loss											
	Border Price Equivalent (with intervention)		259.2	286.4	380.6	452.2	690.6	1,160.7	1,453.4	1,558.4	1,501.9	1,519.3
	Border Price Equivalent (without intervention)		485.7	526.5	553.0	898.4	1,471.6	2,981.3	3,185.4	5,560.0	4,344.8	4,126.1
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)												
	Taxes/Subsidies											
	Transportation											
	Other											
	Border Price Equivalent after Processing (with intervention)		259.2	286.4	380.6	452.2	690.6	1,160.7	1,453.4	1,558.4	1,501.9	1,519.3
	Border Price Equivalent after Processing (without intervention)		485.7	526.5	553.0	898.4	1,471.6	2,981.3	3,185.4	5,560.0	4,344.8	4,126.1
4. PROCESSING (WHOLESALE MARKET)												
	Taxes/Subsidies											
	Processing Costs		(2.0)	(2.6)	(2.9)	(3.4)	(4.8)	(7.7)	(12.0)	(17.4)	(17.7)	(19.5)
	Marketing Margins											
	Other											
	Conversion	(b)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	Border Price Equivalent before Processing (with intervention)		25.2	27.5	37.1	44.1	67.7	114.2	140.6	146.2	140.0	140.0
	Border Price Equivalent before Processing (without intervention)		49.0	52.7	55.2	91.0	149.7	305.3	322.5	566.4	438.5	413.7
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR												
	Taxes/Subsidies											
	Transportation											
	Other											
	Border Price Equivalent at Collection Point (with intervention)		25.2	27.5	37.1	44.1	67.7	114.2	140.6	146.2	140.0	140.0
	Border Price Equivalent at Collection Point (without intervention)		49.0	52.7	55.2	91.0	149.7	305.3	322.5	566.4	438.5	413.7
6. DOMESTIC PRICE	Border		259.2	286.4	380.6	452.2	690.6	1,160.7	1,453.4	1,558.4	1,501.9	1,519.3
	Wholesale		25.2	27.5	37.1	44.1	67.7	114.2	140.6	146.2	140.0	140.0
	Collection Point (Farm)											
7. NPR	Border		-46.6%	-45.6%	-31.2%	-49.7%	-53.1%	-61.1%	-54.4%	-72.0%	-65.4%	-63.2%
	Wholesale		-48.5%	-47.8%	-32.8%	-51.5%	-54.8%	-62.6%	-56.4%	-74.2%	-68.1%	-66.2%
	Collection Point (Farm)											

a. Results derived.
b. Conversion of cane to sugar.

Source: Surveillance Project, LATAD, 1995

TABLE A-4b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Sugar | Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1. OUTPUT												
Domestic Price		$DR Per MT	25.2	27.5	37.1	44.1	67.7	114.2	140.6	146.2	140.0	140.0
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			25.2	27.5	37.1	44.1	67.7	114.2	140.6	146.2	140.0	140.0
Border Price Equivalent		$DR Per MT	49.0	52.7	55.2	91.0	149.7	305.3	322.5	566.4	438.5	413.7
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			49.0	52.7	55.2	91.0	149.7	305.3	322.5	566.4	438.5	413.7
2. TRADABLE DIRECT INPUTS												
Fertilizer	Quantity	MT Per MT of Output	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Domestic Price	DR$ Per MT	458.4	576.5	913.8	1,249.5	1,588.4	1,634.0	2,777.8	4,057.9	4,070.0	3,278.0
	Domestic Cost		5.7	7.2	11.4	15.6	19.9	16.3	27.8	40.6	40.7	32.8
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0
	Border Price Eq. Cost		2.1	7.9	6.9	9.3	17.0	17.4	25.9	38.6	38.8	39.0
Total Direct Inputs (Domestic Prices)			5.7	7.2	11.4	15.6	19.9	16.3	27.8	40.6	40.7	32.8
Total Direct Inputs (Border Price)			2.1	7.9	6.9	9.3	17.0	17.4	25.9	38.6	38.8	39.0
3. TRADABLE INDIRECT INPUTS												
_____	Quantity	_____										
	Domestic Price	_____										
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price	_____										
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED												
Direct Inputs Only	At Domestic Prices		19.5	20.3	25.8	28.4	47.9	97.8	112.9	105.6	99.3	107.2
	At International Prices		46.9	44.8	48.3	81.7	132.7	287.9	296.6	527.8	399.8	374.7
Direct & Indirect Inputs	At Domestic Prices		19.5	20.3	25.8	28.4	47.9	97.8	112.9	105.6	99.3	107.2
	At International Prices		46.9	44.8	48.3	81.7	132.7	287.9	296.6	527.8	399.8	374.7
5. EPR			-58.4%	-54.7%	-46.9%	-65.1%	-63.9%	-66.0%	-62.0%	-80.0%	-75.2%	-71.4%

Source: Surveillance Project, LATAD, 1995

TABLE A-5a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Tobacco | Point of Competition: Border

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE											
Exchange Rate	$DR Per US$	2.0	1.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5	12.9
Border Price	$US FOB Ton	1,269.4	1,198.5	1,293.7	1,208.8	1,342.4	1,110.0	1,040.0	1,100.0	1,264.5	1,264.5
Border Price in Local Currency		2,526.1	2,224.3	4,974.1	7,420.6	8,497.2	9,324.0	12,896.0	13,750.0	15,805.9	16,248.4
2. BORDER ADJUSTMENTS											
Tariffs/Subsidies/Adjustments	(a)	1,250.0	1,577.8	1,195.0	(1,057.0)	(3,460.0)	980.0	680.0	4,866.9	3,745.3	3,934.6
Port Charges											
Storage/Handling/Loss											
Border Price Equivalent (with intervention)		3,776.1	3,802.1	6,169.1	6,363.6	5,037.2	10,304.0	13,576.0	18,616.9	19,551.1	20,183.0
Border Price Equivalent (without intervention)		2,526.1	2,224.3	4,974.1	7,420.6	8,497.2	9,324.0	12,896.0	13,750.0	15,805.9	16,248.4
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent after Processing (with intervention)		3,776.1	3,802.1	6,169.1	6,363.6	5,037.2	10,304.0	13,576.0	18,616.9	19,551.1	20,183.0
Border Price Equivalent after Processing (without intervention)		2,526.1	2,224.3	4,974.1	7,420.6	8,497.2	9,324.0	12,896.0	13,750.0	15,805.9	16,248.4
4. PROCESSING COST (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments											
Processing Costs											
Marketing Margins		(374.5)	(410.8)	(476.4)	(688.0)	(999.9)	(1,591.6)	(2,441.7)	(2,509.2)	(2,709.9)	(3,035.1)
Other											
Conversion		1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Border Price Equivalent before Processing (with intervention)		2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
Border Price Equivalent before Processing (without intervention)		1,595.9	1,324.2	3,403.4	5,100.1	5,627.9	5,681.1	7,617.1	8,215.9	9,618.7	9,638.7
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent at Collection Point (with intervention)		2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
Border Price Equivalent at Collection Point (without intervention)		1,595.9	1,324.2	3,403.4	5,100.1	5,627.9	5,681.1	7,617.1	8,215.9	9,618.7	9,638.7
6. DOMESTIC PRICE	Border	3,776.1	3,802.1	6,169.1	6,363.6	5,037.2	10,304.0	13,576.0	18,616.9	19,551.1	20,183.0
	Wholesale	2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
	Collection Point (Farm)	2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
7. NPR	Border	49.5%	70.9%	24.0%	-14.2%	-40.7%	10.5%	5.3%	35.4%	23.7%	24.2%
	Wholesale	61.1%	92.9%	27.4%	-16.2%	-48.0%	13.5%	7.0%	46.2%	30.4%	31.8%
	Collection Point (Farm)										

a. Results derived.

Source: Surveillance Project, LATAD, 1995

TABLE A-5b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Tobacco | Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	892.3	2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			892.3	2,570.9	2,554.8	4,335.5	4,275.6	2,929.1	6,445.5	8,147.5	12,012.0	12,540.0	12,707.7
Border Price Equivalent		$DR Per MT	1,457.4	1,595.9	1,324.2	3,403.4	5,100.1	5,627.9	5,681.1	7,617.1	8,215.9	9,618.7	9,503.7
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			1,457.4	1,595.9	1,324.2	3,403.4	5,100.1	5,627.9	5,681.1	7,617.1	8,215.9	9,618.7	9,503.7
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	Domestic Price	DR$ Per MT	458.40	576.50	913.79	1249.54	1558.42	1634.03	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		20.5	25.7	40.8	55.8	69.6	65.4	111.1	162.3	162.8	131.1	154.0
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		7.7	28.2	24.6	33.3	60.9	69.6	103.5	154.2	155.0	156.0	161.9
Fungicide	Quantity	Lb Per MT of Output	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
	Domestic Price	DR$ Per LB	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		39.8	53.7	58.5	67.3	93.9	135.7	156.0	184.7	360.3	365.0	374.4
	Border Price Eq. Price	DR$ Per LB	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		35.8	48.3	58.5	67.3	93.9	135.7	156.0	132.1	257.6	292.8	297.5
Insecticide	Quantity	Lt Per MT of Output	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
	Domestic Price	DR$ Per LT	89.00	115.70	125.70	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		68.5	89.1	96.8	110.7	155.0	215.6	321.1	363.3	423.5	428.2	355.0
	Border Price Eq. Price	DR$ Per LT	80.1	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		61.7	80.2	96.5	110.7	155.0	215.6	321.1	259.8	302.8	263.6	241.0
Total Direct Inputs (Domestic Prices)			128.8	168.5	196.1	233.8	318.5	416.7	588.2	710.3	946.6	924.4	883.4
Total Direct Inputs (Border Price)			105.1	156.7	179.6	211.2	309.8	421.0	580.6	546.0	715.4	712.4	700.4
3. TRADABLE INDIRECT INPUTS													
	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		763.5	2,402.0	2,358.7	4,101.7	3,957.1	2,512.4	5,857.3	7,437.2	11,065.4	11,615.6	11,824.3
	At International Prices		1,352.2	1,439.2	1,144.6	3,192.2	4,790.3	5,207.0	5,100.5	7,071.1	7,500.4	8,906.3	8,803.4
Direct & Indirect Inputs	At Domestic Prices		763.5	2,402.0	2,358.7	4,101.7	3,957.1	2,512.4	5,857.3	7,437.2	11,065.4	11,615.6	11,824.3
	At International Prices		1,352.2	1,439.2	1,144.6	3,192.2	4,790.3	5,207.0	5,100.5	7,071.1	7,500.4	8,906.3	8,803.4
5. EPR			-43.5%	66.9%	106.1%	28.5%	-17.4%	-51.7%	14.8%	5.2%	47.5%	30.4%	34.3%

Source: Surveillance Project, LATAD, 1995

TABLE A-6a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic | Type: Exportable
Commodity: Tomato | Point of Competition: Border

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE											
Exchange Rate	$DR Per US$	3.1	2.9	3.8	6.1	6.3	8.4	12.4	12.5	12.5	12.9
Border Price	$US FOB Ton	195.2	321.4	280.4	274.8	234.2	291.5	375.5	380.0	614.0	628.0
Border Price in Local Currency		607.2	932.1	1,076.6	1,687.0	1,482.2	2,448.6	4,656.2	4,750.0	7,675.0	8,069.8
2. BORDER ADJUSTMENTS											
Tariffs/Subsidies	(a)	140.0	(83.5)	(100.5)	(330.2)	101.8	620.4	(89.6)	68.9	(1,193.5)	(582.8)
Port Charges											
Storage/Handling/Loss											
Border Price Equivalent (with intervention)		747.1	848.6	976.1	1,356.8	1,583.9	3,069.0	4,566.6	4,818.9	6,481.5	7,487.1
Border Price Equivalent (without intervention)		607.2	932.1	1,076.6	1,687.0	1,482.2	2,448.6	4,656.2	4,750.0	7,675.0	8,069.8
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)											
Taxes/Subsidies											
Transportation											
Other											
Border Price Equivalent after Processing (with intervention)		747.1	848.6	976.1	1,356.8	1,583.9	3,069.0	4,566.6	4,818.9	6,481.5	7,487.1
Border Price Equivalent after Processing (without intervention)		607.2	932.1	1,076.6	1,687.0	1,482.2	2,448.6	4,656.2	4,750.0	7,675.0	8,069.8
4. PROCESSING (WHOLESALE MARKET)											
Taxes/Subsidies											
Processing Costs											
Marketing Margins		(228.1)	(279.2)	(319.4)	(459.2)	(603.6)	(748.0)	(1,486.6)	(1,870.0)	(2,020.5)	(2,263.1)
Other											
Conversion		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Border Price Equivalent before Processing (with intervention)		519.0	569.3	656.7	897.6	980.3	2,321.0	3,080.0	2,948.9	4,461.0	5,224.0
Border Price Equivalent before Processing (without intervention)		379.0	652.8	757.2	1,227.8	878.5	1,700.6	3,169.6	2,880.0	5,654.5	5,806.8
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR											
Taxes/Subsidies											
Transportation											
Other											
Border Price Equivalent at Collection Point (with intervention)		519.0	569.3	656.7	897.6	980.3	2,321.0	3,080.0	2,948.9	4,461.0	5,224.0
Border Price Equivalent at Collection Point (without intervention)		379.0	652.8	757.2	1,227.8	878.5	1,700.6	3,169.6	2,880.0	5,654.5	5,806.8
6. DOMESTIC PRICE	Border	747.1	848.6	976.1	1,356.8	1,583.9	3,069.0	4,566.6	2,948.9	4,461.0	5,224.0
	Wholesale	519.0	569.3	656.7	897.6	980.3	2,321.0	3,080.0	2,948.9	4,461.0	5,224.0
	Collection Point (Farm)										
7. NPR	Border	23.1%	-9.0%	-9.3%	-19.6%	6.9%	26.3%	-1.9%	1.5%	-15.6%	-7.2%
	Wholesale	36.9%	-12.8%	-13.3%	-26.9%	11.6%	36.5%	-2.8%	2.4%	-21.1%	-10.0%
	Collection Point (Farm)										

a. Results derived.

Source: Surveillance Project, LATAD, 1995

TABLE A-6b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic — Type: Exportable
Commodity: Tomato — Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	336.6	519.0	569.3	656.7	897.6	980.3	2,321.0	3,080.0	2,948.0	4,461.0	5,224.0
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			336.6	519.0	569.3	656.7	897.6	980.3	2,321.0	3,080.0	2,948.0	4,461.0	5,224.0
Border Price Equivalent		$DR Per MT	81.1	379.0	652.8	757.2	1,227.8	878.5	1,700.6	3,169.6	2,880.0	5,654.5	5,806.8
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			81.1	379.0	652.8	757.2	1,227.8	878.5	1,700.6	3,169.6	2,880.0	5,654.5	5,806.8
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Domestic Price	DR$ Per MT	458.40	576.50	913.79	1249.54	1588.40	1634.03	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		15.1	19.0	30.2	41.2	52.4	53.9	91.7	134.0	134.4	108.2	127.1
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		5.7	20.9	18.2	24.6	45.0	57.5	85.4	127.3	127.9	128.7	133.6
Fungicide	Quantity	Lb Per MT of Output	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
	Domestic Price	DR$ Per LB	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		6.6	8.9	9.8	11.2	15.7	22.6	26.0	30.8	60.0	60.8	62.4
	Border Price Eq. Price	DR$ Per LB	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		6.0	8.1	9.8	11.2	15.7	22.6	26.0	22.0	42.9	48.8	49.6
Insecticide	Quantity	LT Per MT of Output	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
	Domestic Price	DR$ Per LT	89.00	115.70	125.35	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		10.7	13.9	15.0	17.3	24.2	33.6	50.0	56.6	66.0	66.7	55.3
	Border Price Eq. Price	DR$ Per LT	80.1	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		9.6	12.5	15.0	17.3	24.2	33.6	50.0	40.5	47.2	41.1	37.6
Total Direct Inputs (Domestic Prices)			32.4	41.9	55.0	69.7	92.2	110.2	167.7	221.4	260.4	235.8	244.8
Total Direct Inputs (Border Price)			21.2	41.4	43.0	53.1	84.8	113.7	161.4	189.8	218.0	218.6	220.8
3. TRADABLE INDIRECT INPUTS													
_____	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		304.2	477.1	514.4	587.0	805.4	870.2	2,153.3	2,858.6	2,687.6	4,225.2	4,979.2
	At International Prices		59.9	337.6	609.8	704.1	1,143.0	764.9	1,539.2	2,979.9	2,662.0	5,435.9	5,586.0
Direct & Indirect Inputs	At Domestic Prices		304.2	477.1	514.4	587.0	805.4	870.2	2,153.3	2,858.6	2,687.6	4,225.2	4,979.2
	At International Prices		59.9	337.6	609.8	704.1	1,143.0	764.9	1,539.2	2,979.9	2,662.0	5,435.9	5,586.0
5. EPR			407.9%	41.3%	-15.7%	-16.6%	-29.5%	13.8%	39.9%	-4.1%	1.0%	-22.3%	-10.9%

Source: Surveillance Project, LATAD, 1995

TABLE A-7a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic — Type: Importable
Commodity: Beans — Point of Competition: Processor

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE											
Exchange Rate	DR$ Per US$	3.1	2.9	3.8	6.1	6.3	8.4	12.4	12.5	12.9	12.9
Border Price	$US CIF Ton	543.6	570.0	493.7	502.8	889 7	900.0	552.3	835 1	585.5	628.0
Border Price in Local Currency		1,690.5	1,655.4	1,895.8	3,087.4	5,631.7	7,560.2	6,848.8	10,438 4	7,565.2	8,113.4
2. BORDER ADJUSTMENTS											
Tariffs/Subsidies/Adjustments											
Port Charges											
Storage/Handling/Loss											
Border Price Equivalent (with intervention)		1,690.5	1,655.4	1,895.8	3,087.4	5,631.7	7,560.2	6,848.8	10,438.4	7,565.2	8,113.4
Border Price Equivalent (without intervention)		1,690.5	1,655.4	1,895.8	3,087.4	5,631.7	7,560.2	6,848.8	10,438.4	7,565.2	8,113.4
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent after Processing (with intervention)		1,690.5	1,655.4	1,895.8	3,087.4	5,631.7	7,560.2	6,848.8	10,438.4	7,565.2	8,113.4
Border Price Equivalent after Processing (without intervention)		1,690.5	1,655.4	1,895.8	3,087.4	5,631.7	7,560.2	6,848.8	10,438.4	7,565.2	8,113.4
4. PROCESSING COST (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments	(a)	130.5	288.7	2,808.7	1,999.4	1,118.8	4,332.9	6,152.4	2,808.1	13,258.3	11,726.1
Processing Costs											
Marketing Margins		(157 7)	(193.1)	(221.8)	(316.9)	(442.6)	(752.4)	(1,033 2)	(1,058.4)	(1,243.1)	(1,282.3)
Other											
Conversion		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Border Price Equivalent before Processing (with intervention)		1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
Border Price Equivalent before Processing (without intervention)		1,532.7	1,462.3	1,674.0	2,770.6	5,189.0	6,807.8	5,815.6	9,379.9	6,322.1	6,831.1
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent at Collection Point (with intervention)		1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
Border Price Equivalent at Collection Point (without intervention)		1,532.7	1,462.3	1,674.0	2,770.6	5,189.0	6,807.8	5,815.6	9,379.9	6,322.1	6,831.1
6. DOMESTIC PRICE	Border										
	Wholesale	1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
	Collection Point (Farm)	1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
7. NPR	Border										
	Wholesale	8.5%	19.7%	167.8%	72.2%	21.6%	63.6%	105.8%	29.9%	209.7%	171.7%
	Collection Point (Farm)	8.5%	19.7%	167.8%	72.2%	21.6%	63.6%	105.8%	29.9%	209.7%	171.7%

a. Represents a subsidy through price supports.

Source: Surveillance Project, LATAD, 1995

TABLE A-7b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic — Type: Importable
Commodity: Beans — Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	1,409.1	1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			1,409.1	1,663.2	1,751.0	4,482.8	4,770.0	6,307.8	11,140.7	11,968.0	12,188.0	19,580.4	18,557.2
Border Price Equivalent		$DR Per MT	339.1	1,532.7	1,462.3	1,674.0	2,770.6	5,189.0	6,807.8	5,815.6	9,379.9	6,322.1	6,831.1
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			339.1	1,532.7	1,462.3	1,674.0	2,770.6	5,189.0	6,807.8	5,815.6	9,379.9	6,322.1	6,831.1
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	Domestic Price	DR$ Per MT	458.40	576.50	913.80	1251.10	1588.40	1634.03	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		51.1	64.3	101.9	139.6	177.2	179.7	305.6	446.4	447.7	360.6	423.5
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.8	745.0	1,362.9	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		19.1	70.5	61.5	83.1	152.0	191.5	284.6	424.1	426.3	429.0	445.3
Fungicide	Quantity	Lb Per MT of Output	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78
	Domestic Price	DR$ Per Lb	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		22.7	30.6	33.4	38.4	53.6	77.4	89.0	105.4	205.6	208.3	213.6
	Border Price Eq. Price	DR$ Per Lb	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		20.4	27.6	33.4	38.4	53.6	77.4	89.0	75.3	147.0	167.1	169.7
Insecticide	Quantity	LT Per MT of Output	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09
	Domestic Price	DR$ Per LT	89.00	115.70	125.35	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		275.0	357.5	387.3	444.2	621.9	865.2	1,288.5	1,458.0	1,699.5	1,718.5	1,424.5
	Border Price Eq. Price	DR$ Per LT	80.1	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		247.5	321 8	387.3	444.2	621.9	865.2	1,288.5	1,042.5	1,215.1	1,057.7	967.1
Total Direct Inputs (Domestic Prices)			348.8	452.5	522.6	622.1	852.6	1,122.4	1,683.1	2,009.8	2,352.8	2,287.3	2,061.6
Total Direct Inputs (Border Price)			287.1	419.8	482.3	565.7	827.5	1,134.1	1,662.1	1,541.9	1,788.4	1,653.8	1,582.1
3. TRADABLE INDIRECT INPUTS													
	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		1,060.3	1,210.7	1,228.3	3,860.7	3,917.4	5,185.5	9,457.6	9,958.2	9,835.2	17,293.1	16,495.6
	At International Prices		52.1	1,112.9	980.0	1,108.4	1,943.1	4,054.9	5,145.6	4,273.7	7,591.6	4,668.3	5,249.0
Direct & Indirect Inputs	At Domestic Prices		1,060.3	1,210.7	1,228.3	3,860.7	3,917.4	5,185.5	9,457.6	9,958.2	9,835.2	17,293.1	16,495.6
	At International Prices		52.1	1,112.9	980.0	1,108.4	1,943.1	4,054.9	5,145.6	4,273.7	7,591.6	4,668.3	5,249.0
5. EPR			1936.7%	8.8%	25.3%	248.3%	101.6%	27.9%	83.8%	133.0%	29.6%	270.4%	214.3%

Source: Surveillance Project, LATAD, 1995

TABLE A-8a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic — Type: Importable
Commodity: White Maize — Point of Competition: Processor

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE											
Exchange Rate	DR$ Per US$	3.1	2.8	3.8	5.2	6.3	8.4	12.4	12.5	12.9	12.9
Border Price	$US CIF Ton	383.2	300.6	213.5	146.9	147.6	163.0	137.8	116.0	120.5	182.8
Border Price in Local Currency		1,191.7	841.6	819.7	756.5	934.5	1,369.3	1,708.8	1,450.0	1,556.3	2,361.8
2. BORDER ADJUSTMENTS											
Tariffs/Subsidies/Adjustments											
Port Charges											
Storage/Handling/Loss											
Border Price Equivalent (with intervention)		1,191.7	841.6	819.7	756.5	934.5	1,369.3	1,708.8	1,450.0	1,556.3	2,361.8
Border Price Equivalent (without intervention)		1,191.7	841.6	819.7	756.5	934.5	1,369.3	1,708.8	1,450.0	1,556.3	2,361.8
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent after Processing (with intervention)		1,191.7	841.6	819.7	756.5	934.5	1,369.3	1,708.8	1,450.0	1,556.3	2,361.8
Border Price Equivalent after Processing (without intervention)		1,191.7	841.6	819.7	756.5	934.5	1,369.3	1,708.8	1,450.0	1,556.3	2,361.8
4. PROCESSING COST (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments	(a)	(583.6)	(215.4)	(153.5)	427.5	245.5	446.6	1,672.2	1,968.0	1,805.4	1,415.9
Processing Costs											
Marketing Margins		(79.0)	(96.7)	(111.1)	(159.0)	(228.1)	(388.1)	(539.9)	(580.0)	(628.4)	(701.6)
Other											
Conversion		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Border Price Equivalent before Processing (with intervention)		529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
Border Price Equivalent before Processing (without intervention)		1,112.7	744.9	708.6	597.5	706.4	981.2	1,169.0	870.0	927.9	1,660.2
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent at Collection Point (with intervention)		529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
Border Price Equivalent at Collection Point (without intervention)		1,112.7	744.9	708.6	597.5	706.4	981.2	1,169.0	870.0	927.9	1,660.2
6. DOMESTIC PRICE	Border										
	Wholesale	529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
	Collection Point (Farm)	529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
7. NPR	Border										
	Wholesale	-52.4%	-28.9%	-21.7%	71.5%	34.8%	45.5%	143.0%	226.2%	194.6%	85.3%
	Collection Point (Farm)	-52.4%	-28.9%	-21.7%	71.5%	34.8%	45.5%	143.0%	226.2%	194.6%	85.3%

a. The main instrument of intervention is the price support.

Source: Surveillance Project, LATAD, 1995

TABLE A-8b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic | Type: Importable
Commodity: White Maize | Level: Farm

			1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT													
Domestic Price		$DR Per MT	396.0	529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			396.0	529.1	529.5	555.1	1,025.0	951.9	1,427.8	2,841.1	2,838.0	2,733.3	3,076.1
Border Price Equivalent		$DR Per MT	94.3	1,112.7	744.9	708.6	597.5	706.4	981.2	1,169.0	870.0	927.9	1,660.2
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			94.3	1,112.7	744.9	708.6	597.5	706.4	981.2	1,169.0	870.0	927.9	1,660.2
2. TRADABLE DIRECT INPUTS													
Fertilizer	Quantity	MT Per MT of Output	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Domestic Price	DR$ Per MT	458.40	576.50	913.79	1249.54	1588.40	1634.03	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		4.7	5.9	9.4	12.9	16.4	16.8	28.6	41.8	41.9	33.8	39.7
	Border Price Eq. Price	DR$ Per MT	171.3	631.8	551.0	745.0	1,363.1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		1.8	6.5	5.7	7.7	14.0	17.9	26.6	39.7	39.9	40.2	41.7
Insecticide	Quantity	Lt Per MT of Output	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Domestic Price	DR$ Per LT	89.00	115.70	125.70	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		35.6	46.3	50.3	57.5	80.5	112.0	166.8	188.7	220.0	222.5	184.4
	Border Price Eq. Price	DR$ Per LT	80.10	104.13	125.35	143.75	201.25	280.00	417.00	337.37	393.25	342.30	312.98
	Border Price Eq. Cost		32.0	41.7	50.1	57.5	80.5	112.0	166.8	134.9	157.3	136.9	125.2
Total Direct Inputs (Domestic Prices)			40.3	52.2	59.7	70.4	96.9	128.8	195.4	230.5	261.9	256.2	224.1
Total Direct Inputs (Border Price)			33.8	48.2	55.8	65.2	94.5	129.9	193.4	174.7	197.2	177.1	166.9
3. TRADABLE INDIRECT INPUTS													
_____	Quantity												
	Domestic Price												
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price												
	Border Price Eq. Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. VALUE ADDED													
Direct Inputs Only	At Domestic Prices		355.7	476.9	469.8	484.7	928.1	823.1	1,232.4	2,610.6	2,576.1	2,477.1	2,852.0
	At International Prices		60.4	1,064.6	689.1	643.4	503.0	576.4	787.8	994.3	672.8	750.9	1,493.3
Direct & Indirect Inputs	At Domestic Prices		355.7	476.9	469.8	484.7	928.1	823.1	1,232.4	2,610.6	2,576.1	2,477.1	2,852.0
	At International Prices		60.4	1,064.6	689.1	643.4	503.0	576.4	787.8	994.3	672.8	750.9	1,493.3
5. EPR			488.4%	-55.2%	-31.8%	-24.7%	84.5%	42.8%	56.4%	162.6%	282.9%	229.9%	91.0%

Source: Surveillance Project, LATAD, 1995

TABLE A-9a
Standardized Format
Nominal Rate of Protection

Country: Dominican Republic | Type: Importable
Commodity: Rice | Point of Competition: Processor

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. UNADJUSTED BORDER PRICE											
Exchange Rate	$DR Per US$	3.1	2.9	3.8	6.1	6.3	8.3	12.4	12.5	12.5	12.9
Border Price	$US CIF Ton	382.5	342.8	323.8	429.4	409.3	388.9	420.0	366.0	375.0	300.0
Border Price in Local Currency		1,189.6	994.2	1,243.5	2,636.3	2,595.1	3,224.2	5,208.0	4,575.0	4,687.5	3,855.0
2. BORDER ADJUSTMENTS											
Tariffs/Subsidies/Adjustments											
Port Charges											
Storage/Handling/Loss											
Border Price Equivalent (with intervention)		1,189.6	994.2	1,243.5	2,636.3	2,595.1	3,224.2	5,208.0	4,575.0	4,687.5	3,855.0
Border Price Equivalent (without intervention)		1,189.6	994.2	1,243.5	2,636.3	2,595.1	3,224.2	5,208.0	4,575.0	4,687.5	3,855.0
3. COSTS FROM BORDER TO PROCESSING (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent after Processing (with intervention)		1,189.6	994.2	1,243.5	2,636.3	2,595.1	3,224.2	5,208.0	4,575.0	4,687.5	3,855.0
Border Price Equivalent after Processing (without intervention)		1,189.6	994.2	1,243.5	2,636.3	2,595.1	3,224.2	5,208.0	4,575.0	4,687.5	3,855.0
4. PROCESSING COST (WHOLESALE MARKET)											
Tariffs/Subsidies/Adjustments	(a)	114.2	219.4	322.4	(1,234.3)	644.8	2,608.1	1,406.9	4,711.0	3,320.9	4,631.4
Processing Costs											
Marketing Margins		(177.5)	(217.3)	(249.6)	(357.4)	(686.8)	(1,030.0)	(1,078.0)	(1,080.0)	(1,166.4)	(1,306.4)
Other											
Conversion		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Border Price Equivalent before Processing (with intervention)		1,126.3	996.3	1,316.3	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
Border Price Equivalent before Processing (without intervention)		1,012.1	776.9	993.9	2,278.9	1,908.3	2,194.2	4,130.0	3,495.0	3,521.1	2,548.6
5. COSTS FROM COLLECTION POINT (FARM) TO PROCESSOR											
Tariffs/Subsidies/Adjustments											
Transportation											
Other											
Border Price Equivalent at Collection Point (with intervention)		1,126.3	996.3	1,316.3	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
Border Price Equivalent at Collection Point (without intervention)		1,012.1	776.9	993.9	2,278.9	1,908.3	2,194.2	4,130.0	3,495.0	3,521.1	2,548.6
6. DOMESTIC PRICE	Border										
	Wholesale	1,126.3	996.3	1,316.3	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
	Collection Point (Farm)	1,126.3	996.3	1,316.3	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
7. NPR	Border										
	Wholesale	11.3%	28.2%	32.4%	-54.2%	33.8%	118.9%	34.1%	134.8%	94.3%	181.7%
	Collection Point (Farm)	11.3%	28.2%	32.4%	-54.2%	33.8%	118.9%	34.1%	134.8%	94.3%	181.7%

a. Results derived.

Source: Surveillance Project, LATAD, 1995

TABLE A-9b
Standardized Format
Effective Rate of Protection

Country: Dominican Republic | Type: Importable
Commodity: Rice | Level: Farm

			1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. OUTPUT														
Domestic Price		$DR Per MT	481.4	740.5	1,126.3	996.4	1,316.2	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
Quantity		MT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Domestic Prices			481.4	740.5	1,126.3	996.4	1,316.2	1,044.6	2,553.0	4,802.3	5,536.9	8,206.0	6,842.0	7,180.0
Border Price Equivalent		$DR Per MT	241.8	251.9	1,012.1	776.9	993.9	2,278.9	1,908 3	2,194.2	4,130.0	3,495.0	3,521.1	2,548.6
Quantity		MT	1 0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Value at Border Price Equivalent			241.8	251 9	1,012.1	776.9	993.9	2,278.9	1,908.3	2,194.2	4,130.0	3,495.0	3,521.1	2,548.6
2 TRADABLE DIRECT INPUTS														
Fertilizer	Quantity	MT Per MT of Output	0.08	0.08	0.08	0.08	0.08	0.08	0.15	0.15	0.15	0.15	0.15	0.15
	Domestic Price	DR$ Per MT	240.00	458.40	576.50	913.80	1249.54	1588.40	1634.03	2777.80	4057.90	4070.00	3278.00	3850.00
	Domestic Cost		19.2	36.9	46.3	73.5	100.5	127.7	245.1	416.7	608.7	610.5	491.7	577.5
	Border Price Eq. Price	DR$ Per MT	234.9	171.3	631.8	551.0	745.0	1,363 1	1,740.8	2,587.2	3,855.0	3,875.0	3,900.0	4,047.8
	Border Price Eq. Cost		18.8	13.8	50.8	44.3	59.9	109.6	261.1	388 1	578.3	581.3	585.0	607.2
Fungicide	Quantity	Lb Per MT of Output	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Domestic Price	DR$ Per Lb	8.90	12.75	17.21	18.75	21.56	30.10	43.50	50.00	59.20	115.48	117.00	120.00
	Domestic Cost		1 6	2.3	3.1	3.4	3.9	5.4	7.8	9.0	10 7	20.8	21.1	21.6
	Border Price Eq. Price	DR$ Per Lb	8.01	11.48	15.49	18.75	21.56	30.10	43.50	50.00	42.33	82.57	93.85	95.34
	Border Price Eq. Cost		1.4	2.1	2.8	3.4	3.9	5.4	7.8	9.0	7.6	14.9	16.9	17.2
Insecticide	Quantity	Lt Per MT of Output	0.20	0 20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	Domestic Price	DR$ Per LT	43.00	89.00	115.70	125.70	143.75	201.25	280.00	417.00	471.85	550.00	556.15	461.00
	Domestic Cost		8.6	17.8	23.1	25.1	28.8	40 3	56.0	83.4	94.4	110.0	111.2	92.2
	Border Price Eq. Price	DR$ Per LT	38.7	80.1	104.1	125.4	143.8	201.3	280.0	417.0	337.4	393.3	342.3	313.0
	Border Price Eq. Cost		7.7	16.0	20.8	25.1	28.8	40.3	56.0	83.4	67.5	78 7	68.5	62.6
Herbicide	Quantity	Lt Per MT of Output	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
	Domestic Price	DR$ Per LT	13.88	29.80	37 25	40.44	46.46	60.45	85 20	94 75	257.87	275.00	297.00	292.00
	Domestic Cost		23.3	50.1	62.6	67 9	78.1	101.6	143.1	159 2	433.2	462.0	499.0	490.6
	Border Price Eq. Price	DR$ Per LT	12.49	26.82	33.53	40.44	46.46	60.45	85.20	66.80	181.80	193.88	209.39	198.81
	Border Price Eq. Cost		21.0	45.1	56.3	67.9	78.1	101.6	143.1	112 2	305.4	325 7	351.8	334.0
Total Direct Inputs (Domestic Prices)			52.7	107.0	135.2	169.9	211.1	274.9	452.1	668 3	1,146.9	1,203.3	1,123.0	1,181.9
Total Direct Inputs (Border Price)			49.0	76.9	130.7	140.7	170.6	256.8	468.1	592.7	958 8	1,000.5	1,022.1	1,020 9
3. TRADABLE INDIRECT INPUTS														
	Quantity													
	Domestic Price													
	Domestic Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Border Price Eq. Price													
	Border Price Eq. Cost		0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0 0	0 0	0.0	0.0
Total Indirect Inputs (Domestic Prices)			0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	0.0
Total Indirect Inputs (Border Price)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	0 0	0.0	0 0	0.0
4. VALUE ADDED														
Direct Inputs Only	At Domestic Prices		428.7	633.5	991.1	826 5	1,105.1	769.7	2,100 9	4,134.1	4,390 0	7,002.7	5,719.1	5,998.1
	At International Prices		192.9	175.0	881.3	636.2	823 3	2,022 1	1,440.2	1,601 5	3,171 2	2,494 5	2,499.0	1,527.7
Direct & Indirect Inputs	At Domestic Prices		428.7	633.5	991.1	826.5	1,105.1	769.7	2,100.9	4,134.1	4,390.0	7,002.7	5,719.1	5,998.1
	At International Prices		192.9	175.0	881.3	636.2	823 3	2,022.1	1,440.2	1,601.5	3,171.2	2,494 5	2,499.0	1,527.7
5 EPR			122.3%	261.9%	12.5%	29.9%	34.2%	-61 9%	45.9%	158.1%	38.4%	180.7%	128 9%	292 6%

Source: Surveillance Project, LATAD, 1995

APPENDIX B

ABOUT DOMINICAN REPUBLIC'S COMMODITY MARKETS

This appendix provides a short description of the commodity markets in the Dominican Republic. Discussions outline the markets, direct government interventions, the selection of domestic and border prices for NPR estimates, and adjustments for quality differences and transportation costs. Information is included for each commodity on how data were obtained.

Sugar

Sugar has been the Dominican Republic's major export product. Different markets exist for sugar. Domestically, sugar was marketed by the Institute for Price Stabilization (INESPRE) and from 1970 until 1986 through the wholesalers and retailers. Since, 1986, wholesalers and retailers can buy directly from the sugar mills. Externally, sugar is sold in the US quota market and the world market.

Production is carried out by 16 sugar mills with the government operating 12 of these mills. The State Sugar Council (CEA) is the major producer of sugar and the major provider of credit to sugarcane growers (*colonos*). Producer price is set by law 491 based on the average selling price of raw sugar export. (Green and Roe).

Sugar has declined as the major earner of foreign exchange due to depressed world prices and the reduction of the export quota granted by the United States. The United States established import quotas for sugar in 1934 to protect domestic producers. Since 1962, the Dominican Republic has been the major exporter among Latin American countries under the quota system. Sugar exports to the U.S. accounts for 81 percent of the total sugar export. However, sugar exports through the quota system have been declining since the late 1970s. During 1978-1981, the basic quota assigned to the Dominican Republic was 780,000 tons annually. During 1982-1983, it was reduced to 535,000 tons, and by 1988 it was only 123,000 tons. It was increased later that year to 176,700 tons due to the drought in the United States (ERS, 1988; EIU, 1989).

For the year 1992/1993 (October 1992-September 1993) the export quota allotted to the Dominican Republic is 205,232 metric tons compared with 307,016 metric tons in 1990/1991. Real income from sugar exports has consequently decreased from US $558.98 million in 1981 to US $114.80 million in 1992. (Boletin Estadistico, Instituto Azucarero Dominicano, 1993).

Sugar production has also declined. In 1992, production totaled 592,775 metric tons which is 50 percent of the production achieved in 1984 (1,130,346 tons). As a

consequence, during this year there were imports of refined sugar to meet domestic demand (part of the production was used to export quota to the U.S.).

Rice

Rice, the main staple food, provides 39 percent of the calories and 27 percent of the protein consumed by the population (SEA). Since 1966, agricultural officials have pursued the policy of self-sufficiency in rice.

Production of rice has been increasing continuously since 1966. In 1990, 100,052 hectares were devoted to rice production with a production of 278.3 thousands of metric tons of rough rice. The country achieved self-sufficiency during the early 1980s due to the incorporation of new irrigated land and the introduction of new seed varieties. In addition, the government subsidized production on the acreage distributed under land reform programs through its input policies (subsidized loans, machinery, water, and fertilizers) and free technical assistance.

The National Institute for Price Stabilization (INESPRE) was the only agency allowed to market rice. Owners of rice mills had to render their polished rice to INESPRE which in turn delivered the product to wholesale organizations and directly to consumers through its social program of "popular sales". In most of the years when INESPRE handled the marketing of rice, the price paid to millers was higher than the price INESPRE charged to wholesalers. The purpose of this policy was to subsidize consumption of rice to the population while giving attractive prices to producers. In 1986, INESPRE was responsible for the marketing of 85 percent of the domestic rice production. Imports of rice were also handled by INESPRE. In 1985, the country had to import rice to meet domestic demand. INESPRE began to face liquidity problems and became unable to pay mill owners (World Bank, 1985).

In 1986, the new government reduced the monopoly power enjoyed by INESPRE turning the marketing of rice over to the Agricultural Bank (BAGRICOLA) and created a National Rice Committee to deal with the rice policy. In August of 1987, through decree 381, government intervention in the domestic market was eliminated and the government's role was limited to price support to avoid speculation by keeping a rice quantity as inventory. In 1990, imports of rice totaled 30,391 metric tons. By 1990, domestic purchases of rice by INESPRE were only 4.16% and imports were handled by the Agricultural Bank. Production of rice has been increasing continuously since 1966. In the last two months of 1992 and during 1993 there has been an excess of supply. When producers, encouraged by the government, wanted to export to Haiti and other Caribbean countries, the domestic price of the Dominican rice was higher than the international prices that those countries were facing and the country could not export. To make export profitable, the government decided to subsidize rice exports. Up to September of 1993, rice exports amounted to 17,850 tons out of 30,000 tons programmed to be exported in 1993.

The unitary subsidy is DR$80/quintal exported. Exports are being carried out by the private sector. The subsidy is being used to honor part of the debt of the producers with the Agricultural Bank. The Agricultural Bank is the government agency which has the mandate to import rice. In August of 1987, through decree 381, the government intervention in the domestic market was eliminated and the government's role was limited to price support or to avoid speculation by keeping a rice quantity as inventory.

Red Beans

Red beans is one of the staple foods along with rice in the Dominican Republic. A big portion of the soil devoted to red beans is highly erosive with high slope in areas ecologically fragile and unsuitable for short-cycle crops. The average farm devoted to red beans production has a size of one hectare. Red bean yields have been very low in the last decade. Ninety-five percent of the domestic production is used for human consumption. The remaining 5 percent is kept for seed purposes.

In the last six years, domestic production of red beans has supplied only 70 percent of the total domestic consumption. As a consequence, annual imports for the same period have been 1,500,000 quintals (68,182 metric tons). The Institute for Price Stabilization (INESPRE) intervenes in the marketing of the product providing some price support to the producer and importing the commodity whenever it is considered that domestic production would be insufficient to satisfy domestic demand. Through the decree 1194 (1975), INESPRE is allowed to participate in the marketing of red beans. In addition to INESPRE, middlemen, truckers, agribusiness, wholesalers and retailers intervene in the domestic marketing of red beans.

Maize

Corn is mainly used for animal feed (especially poultry) and human consumption by rural households. Most of the corn produced comes from small plots which are usually cropped with red beans.

Most of the corn consumed has to be imported. Domestic production accounts for only 20 percent of the total consumption. Annual imports averaged 6.6 million metric tons during the last five years. INESPRE intervenes in the domestic production of corn by the provision of price support to corn growers. Up to September, corn imports in 1993 totaled 356,574 tons. Imports are carried out through the private sector.

Cassava

Cassava production has been stagnant during the last decade. Domestic consumption has declined but exports have increased during the last ten years. In 1990, cassava exports totaled 7,141 metric tons which represented an increase of 55 percent of the

cassava exports in 1981. Domestic consumption has declined but exports have increased during the last ten years. In 1992, cassava exports totaled 2,244 metric tons.

Tobacco

Black tobacco is used for exports. Most of the exports go to Spain for the production of cigar. The Tobacco Institute (INTABACO), a public agency, provides incentives to producers through free technical assistance and free distribution of seeds and chemical inputs. In addition, INTABACO buys part of the production that is later exported. In most cases, producers sell their production to middlemen who in turn sell to exporters. Exports of tobacco have been declining due to a decline in world demand and low world prices. With the establishment of the industrial free zones in the country, some tobacco production has been diverted to cigar companies established in those free zones.

Coffee

Coffee is the second most important agricultural export commodity. Produced mainly by small and medium farms, 94 percent of the plots have an average size of less than 6.28 hectares. Production of coffee has been affected by the inability to introduce new and improved varieties, low use of fertilizer and the existence of old coffee plantations (UEPA). As a consequence, the average yield is one of the lowest in Latin America (0.36 metric tons per hectare).

Coffee exports represent one of the most important sources of fiscal revenue. Law 199 specifies a levied tax on export based on the level of the export price. In 1990, taxes from coffee exports totaled DR$262 million. Coffee exports fluctuated during the 1984-1990 period. In 1990, coffee exports totaled US $46.6 million, the lowest during the period of study.

Domestic marketing of coffee is very complex. Coffee growers sell their production to a diverse group of middlemen, and in some cases, sell their production before harvest.

Production of coffee has been affected by the inability to introduce new and improved varieties, low use of fertilizer and the existence of old coffee plantations and, in the last two years, a reduction in acreage. Due to low world market prices, coffee growers are diversifying and producing fruits on their plots. In October 1992, the government allotted DR$55 million to subsidize coffee exports. The unitary subsidy was DR$100 per quintal (a hundred weight) exported. Coffee exports for the period 1992 to 1993 (October 1992 to August 1993) totaled 548,546 quintals (24,940 tons) which exhausted the subsidy provided by the government. There is no tax or tariff on exports.

Tomatoes

Tomatoes are grown extensively in the southwest and northwest regions. Fresh tomatoes are exported during the winter season to the U.S. Tomato production has been hampered by the White fly.

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