AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE II

Under contract to the Agency for International Development, Bureau for Research and Development, Office of Agriculture
Project Office Hampden Square, 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814 • Telephone: (301) 913-0500
Telex: 312636 • Fax: (301) 652-3839

EL SAVADOR AGRICULTURAL SECTOR TRADE AND INVESTMENT STUDY

September 1993

APAP II
Technical Report
No. 135

Prepared for

Agricultural Policy Analysis Project, Phase II (APAP II)
and
USAID/El Salvador

A.I.D. Contract Nos. DAN-4084-Z-11-8034-00 and LAG-4084-C-00-2043-00

Authors: Manuel Vanegas, Sr.
Mark D. Wenner
Amy Angel

Prime Contractor: **Abt Associates Inc.**, 55 Wheeler Street, Cambridge, MA 02138 • (617) 492-7100

Subcontractors: **Harvard Institute for International Development**, Harvard University, One Eliot Street, Cambridge, MA 02138 • (617) 495-9779
Food Research Institute, Stanford University, Stanford, CA 94305-6084 • (415) 723-0693
North Carolina State University, Department of Economics and Business, Box 7645, Raleigh, NC 27695-7645 • (919) 515-3107
Abel, Daft & Earley, 1410 King Street, Alexandria, VA 22314 • (703) 739-9090
International Science and Technology Institute, 1129 20th Street, NW, Suite 800, Washington, D.C. 20036 • (202) 785-0831
Inf

TABLE OF CONTENTS

LIST OF TABLES v
LIST OF FIGURES vii
LIST OF ACRONYMS ix
ABSTRACT xi
ACKNOWLEDGMENTS xii
EXECUTIVE SUMMARY xiii

1. INTRODUCTION 1-1
   1.1 Statement of Problem 1-1
   1.2 Objectives of the Study 1-2
   1.3 Organization of the Study 1-2

2. ANALYSIS OF POLICIES AFFECTING TRADE AND INVESTMENT . . . 2-1
   2.1 Review of Recent Economic and Agricultural Trade Developments 2-1
      2.1.1 Structure of the Economy 2-3
      2.1.2 Composition, Balance, and Direction of Merchandise Trade 2-3
   2.2 Macroeconomic and Trade Policies 2-8
      2.2.1 Exchange Rate Returns 2-10
      2.2.2 Commercial Policy: Tariff Structure 2-13
      2.2.3 Commercial Policy: Export Controls and Nontariff Barriers 2-18
      2.2.4 Monetary and Credit Policies 2-19
      2.2.5 Fiscal Policy and Public Investment 2-21
      2.2.6 Wages and Labor Productivity 2-25
   2.3 Conclusions and Recommendations 2-25

3. AGRICULTURE GROWTH TRENDS AND POLICY DEVELOPMENT ISSUES 3-1
   3.1 Introduction 3-1
   3.2 Background 3-1
      3.2.1 Stabilizing Tedns in Value Added and Exports 3-2
      3.2.2 Agricultural Growth Trends 3-2
      3.2.3 Overview of Price Tendencies 3-3
      3.2.4 Overview of Agricultural and Food Policies 3-5
      3.2.5 Agriculture and the Structural Adjustment Program 3-5
   3.3 Sectoral Policy Setting 3-6
      3.3.1 Price Controls 3-6
      3.3.2 Problem of the Sugar Industry 3-8
      3.3.3 Legal Regime 3-8
      3.3.4 Consumer Rules and Standards 3-9
      3.3.5 Labor and Contract Enforcement 3-9
   3.4 Policy Impacts 3-9
      3.4.1 Impacts on Major Export Crops 3-9
      3.4.2 Impact on Basic Grains 3-11
      3.4.3 Impact on Livestock, Poultry, and Shrimp 3-11

3.4.4 Impacts on the Price Band System, 1989-93 3-12

3.4.5 Impact on Production and Technology 3-13
3.5 Recommended Reforms 3-14
3.5.1 Marketing Policy, Information, and Access 3-15
3.5.2 Use and Land Tenure 3-16
3.6 Conclusions and Recommendations 3-17

4. EXPORT INCENTIVES AND INVESTMENT PROMOTION 4-1
4.1 Conceptual Framework 4-1
4.2 Legal Framework for Export and Investment Incentives 4-3
4.3 Institutional Support Framework 4-5
4.3.1 Export Procedures 4-9
4.3.2 Direct Investment Procedures 4-9
4.3.3 Procedures to Claim a Fiscal Incentive 4-12
4.4 Evaluation of the Effectiveness of Export and Investment Incentives . . . 4-12
4.5 Trade and Investment Financing 4-15
4.6 Conclusions and Recommendations 4-17
4.6.1 Findings 4-17
4.6.2 Recommendations 4-18

5. A PROGRAM OF INFRASTRUCTURE INVESTMENT 5-1
5.1 Assessment of Constraints and Infrastructural Problems 5-1
5.2 The Investment Program and Strengthening of Institutions 5-2

6. IMPLICATIONS OF ECONOMIC INTEGRATION FOR SALVADORAN AGRICULTURE 6-1
6.1 Overview of Economic Integration 6-1
6.1.1 Types of Integration 6-1
6.1.2 Benefits and Costs of Integration 6-2
6.1.3 Factors Affecting Success of Integration 6-3
6.1.4 Trade Creation versus Trade Diversion 6-4
6.2 Overview of CACM 6-4
6.2.1 Historical Background 6-4
6.2.2 Future Plans and Prospects 6-6
6.2.3 El Salvador and CACM 6-7
6.3 NAFTA and El Salvador 6-9
6.3.1 Effects of NAFTA on the United States and Mexico 6-10
6.3.2 El Salvador's Trade Relationship with Mexico 6-11
6.3.3 El Salvador's Trade Relationship with the United States 6-13
6.3.4 Effects of NAFTA on Salvadoran Agricultural Exports 6-13
6.3.5 Foreign Investment Concerns 6-23
6.3.6 Accession to NAFTA 6-24
6.4 El Salvador and GATT 6-26
6.5 Opportunities and Challenges for El Salvador under Liberalized Trade . . 6-26
6.5.1 Harmonization of Sanitary and Phytosanitary Regulations 6-26

6.5.2 Cooperation and Coordination of Monetary and Fiscal Policies . . 6-27
6.5.3 Restructuring of Agriculture and Agroindustry 6-28
6.6 Policy Implications and Recommendations 6-28

7. MEASURING EXPORT COMPETITIVENESS 7-1
7.1 Introduction 7-1
7.2 Conceptual Approaches to Determining Comparative/ Competitive Advantage 7-1
7.2.1 Commodity Approach 7-2
7.2.2 Export Parity Prices 7-2
7.2.3 Nominal Protection Coefficients and Effective Protection Coefficients 7-2
7.2.4 Cost of Productions 7-3
7.2.5 Domestic Resource Costs 7-4
7.2.6 The Policy Analysis Matrix 7-5
7.3 Implications for Competitiveness Study for El Salvador 7-10
7.4 Conclusions 7-10

8. CONCLUSIONS, RECOMMENDATIONS, AND FUTURE ANALYSIS 8-1
8.1 Conclusion 8-1
8.2 Recommendations 8-2
8.2.1 Policy Strategy 8-2
8.2.2 Institutional Needs 8-4
8.3 Suggestions for Additional Research 8-4

REFERENCES

Appendix A: Chapter 2 Supplemental Tables and Figures A-1
Appendix B: Chapter 3 Supplemental Tables and Figures B-1
Appendix C: Chapter 6 Supplemental Tables C-1
Appendix D: List of Persons Interviewed D-1

LIST OF TABLES

Table 2.1 Selected Macroeconomic Indicators 2-2
Table 2.2 Change in Agriculture Value Added 2-4
Table 2.3 Exports by Principal Groups 2-5
Table 2.4 Direction of Trade 2-9
Table 2.5 Nominal and Real Effective Exchange Rates 2-11
Table 2.6 Regression Results on Test of Real Effective Rate Hypothesis 2-13
Table 2.7 Chronology of Trade Reform 2-14
Table 2.8 Frequency Distribution of Tariff Rates 2-15
Table 2.9 Average Nominal Protection Rates 2-15
Table 2.10 Legal Tariff Rates for Agricultural Products as of January 1992 2-16
Table 2.11 Tariff and Export Tax Revenue 2-17
Table 2.12 Wages by Sector 2-26
Table 2.13 Salvadoran Rural Employment and Productivity Indicators 2-27

Table 3.1 Policy Reforms in Agriculture and Selected Economy Wide Adjustement, El Salvador, 1989-93 3-18
Table 3.2 Growth Rates and Correlation Coefficient of GDP and Agricultural GDP 3-19
Table 3.3 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Coffee, El Salvador, 1970-93 3-20
Table 3.4 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Cotton, El Salvador, 1970-93 3-21
Table 3.5 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Sugarcane, El Salvador, 1970-93 3-22
Table 3.6 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Corn, El Salvador, 1970-93 3-23
Table 3.7 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Sorghum, El Salvador, 1970-93 3-24
Table 3.8 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Rice, El Salvador, 1970-93 3-25
Table 3.9 Annual Growth Rates and Coefficient of Variation of Production, Area and Yield of Beans, El Salvador, 1970-93 3-26
Table 3.10 Production, Area Planted and Yields of Staple Crops, El Salvador, 1989/90-1992/93 3-27
Table 3.11 Application of the Price Band Mechanism to Corn, El Salvador, US$/MT, June 1990 3-28
Table 3.12 Price Band Performance Comparison Between Producer, Wholesale, and Retail Prices of Corn, Sorghum, and Rice, El Salvador, 1980-89 versus 1990-93 3-29

Table 4.1 Synopsis of Trade and Investment Laws 4-4
Table 4.2 Public and Private Institutions Providing Support to the Export Sector . . . 4-6
Table 4.3 Export Procedures 4-10
Table 4.4 Direct Investment Procedures 4-11
Table 4.5 Procedures for Claiming Fiscal Incentives (6% Duty drawback and Return of Value Added Tax) 4-12

Table 4.6 Number and Amount of Duty Drawback Payments 4-14

Table 6.1 Value of Main Salvadoran Agricultural Exports and Total Exports to Central America, 1992 6-9
Table 6.2 Value and Volume of Salvadoran Agricultural Trade with Mexico, 1992 . 6-12
Table 6.3 Value and Volume of Salvadoran Agricultural Trade with the United States, 1992 6-15
Table 6.4 Comparison of Mexican and Salvadoran Competitive Exports to the United States, 1991 6-18

APPENDIX TABLES

Appendix A.1 Selected Macroeconomic Indicators, El Salvador, 1980-1992
Appendix A.2 Annual Percentage Change in Agriculture Value Added in Constant 1962 Colones
Appendix A.3 Gross Domestic Product by Sectors, El Salvador, 1980-1992 (Constant 1962 Colones)
Appendix A.5 Legal Tariff Rates for Agricultural Products as of January 1992
Appendix A.6 Legal Tariff Rates for Agricultural Products as of January 1992 (Continued)
Appendix A.7 Direction of Non-Traditional Exports, El Salvador, 1980-1992 (Million US Current Dollar, FOB)
Appendix A.8 Value of Non-Traditional Exports by Group, El Salvador, 1987-1992A-8

Appendix B.1 Merchandise Exports Value by Group, El Salvador, 1980-1992 (Million US Current Dollars, FOB)
Appendix B.2 Value Added in the Agricultural Sector, El Salvador, 1970-1992 (Constant 1962 Prices)
Appendix B.3 Production, Area, and Yield of Coffee, El Salvador, 1970-1993
Appendix B.4 Production, Area, and Yield of Cotton, El Salvador, 1970-1993
Appendix B.5 Production, Area, and Yield of Sugarcane, El Salvador, 1970-1993
Appendix B.6 Production, Area, and Yield of Corn, El Salvador, 1970-1993
Appendix B.7 Production, Area, and Yield of Sorghum, El Salvador, 1970-1993
Appendix B.8 Production, Area, and Yield of Rice, El Salvador, 1970-1993
Appendix B.9 Production, Area, and Yield of Beans, El Salvador, 1970-1993

Appendix C.1 Exports Among Central American Region, 1989-1992
Appendix C.2 Composition of U.S. Imports from Central America by Country, 1989-1992
Appendix C.3 Composition of U.S. Imports from Central America by Country, 1989-1992 (continued)
Appendix C.4 Peak Harvest Seasons for Selected U.S. and Mexican Fruits and Vegetables
Appendix C.5 List of Fruits and Vegetables Admissible in the United States from El Salvador

LIST OF FIGURES

Figure 2.1 Salvadoran Balance of Trade 2-6
Figure 2.2 Export Categories 2-6
Figure 2.3 Agricultural Export Shares 2-7
Figure 2.4 Manufactures Export Shares 2-8
Figure 2.5 Legal Reserves and Bond Issues 2-20
Figure 2.6 Fiscal Policy and Public Investment 2-21
Figure 2.7 Merchamdise Balance of Trade, El Salvador 2-24

Figure 3.1 Direction of Non Traditional Merchandise Exports, El Salvador, 1970-92 3-30
Figure 3.2 Share of Agriculture Value Added, El Salvador, 1990-92 3-31
Figure 3.3 Linear Trend in Coffee Production in El Salvador, 1970-93 3-32
Figure 3.4 Linear Trend in Cotton Production in El Salvador, 1970-93 3-32
Figure 3.5 Linear Trend in Sugar Production in El Salvador, 1970-93 3-33
Figure 3.6 Linear Trend in Corn Production, El Salvador, 1970-93 3-34
Figure 3.7 Linear Trend in Sorghum Production, El Salvador, 1970-93 3-34
Figure 3.8 Linear Trend in Rice Production in El Salvador, 1970-93 3-35
Figure 3.9 Linear Trend in Beans Production in El Salvador, 1970-93 3-35
Figure 3.10 Farm-Retail Price Relationship of Corn, El Salvador, 1980-93 3-36
Figure 3.11 Farm-Retail Price Relationship of Sorghum, El Salvador, 1980-93 3-36
Figure 3.12 Farm-Retail Price Relationship of Rice, El Salvador, 1980-93 3-37
Figure 3.13 Farm-Retail Price Relationship of Beans, El Salvador, 1980-93 3-37
Figure 3.14 Agricultural Land use by Crop Group, El Salvador, 1970-92 3-38
Figure 3.15 Operation of the Price Band Under El Salvador's Condition 3-39

Figure 4.1 Duty Drawback Distribution: By Category of Business in 1992 4-14

Figure 6.1 Graphical Representation of Trade Creation and Trade Diversion 6-5
Figure 6.2 Exports Among Central American Region, 1989-1992 6-7
Figure 6.3 Salvadoran Exports to Central America by Destination, 1989-1992 6-8
Figure 6.4 Composition of Central American Exports to the U.S. by Country, 1992 6-14
Figure 6.5 Composition of Salvadoran Exports to the U.S., 1989-1992 6-14
Figure 6.6 Central American GDP Compared to Chile and Venezuela, 1991 6-25

Appendix A.4a Structure of Central Government Revenue, El Salvador, 1970-1992
Appendix A.4b Structure of Central Government Total Expenditure, El Salvador, 1970-1992

APPENDIX FIGURES

Appendix B.10a Nominal and Real Coffee Producer Prices, El Salvador, 1970-1992
Appendix B.10b Nominal and Real Sugar Producer Prices, El Salvador, 1970-1992
Appendix B.11a Nominal and Real Corn Producer Prices, El Salvador, 1970-19923
Appendix B.11b Nominal and Real Rice Producer Prices, El Salvador, 1970-1992
Appendix B.12a Nominal and Real Bean Producer Prices, El Salvador, 1970-1992

Appendix B.12b	Linear Trend of Real Producer Prices for Corn, El Salvador, 1980-1993
Appendix B.13a	Linear Trend of Real Producer Prices for Sorghum, El Salvador, 1980-1993
Appendix B.13b	Linear Trend of Real Producer Prices for Rice, El Salvador, 1980-1993
Appendix B.14	Linear Trend of Real Producer Prices for Beans, El Salvador, 1980-1993

LIST OF ACRONYMS

ANTEL	National Telecommunications Administration (Administración Nacional de Telecomunicaciones)
BCR	Central Reserve Bank (Banco Central de Reserva)
BFA	Agricultural Development Bank (Banco de Fomento Agropecuario)
CACM	Central American Common Market
CBI	Caribbean Basin Initiative
CEL	Lempa River Hydroelectric Commission (Comisión Ejecutiva Hidroelétrica del Rio Lempa)
CEM	monetary stabilization bonds
CENTA	Agricultural Technology Center (Centro de Technología Agrícola)
CENTREX	Export Transaction Center (Centro de Tramites de Exportación)
CIF	cost, insurance, and freight
CIMMYT	International Research Center for Corn and Wheat (Centro Internacional para el Mejoramiento de Maíz y Trigo)
CIRSA	Regional Committee on Phitosanitary Requirements (Comité Internacional Regional de Sanidad Agropecuaria)
CLUSA	Cooperative League of the United States of America
COEXPORT	Exporters Corporation of El Salvador (Corporación de Exportadores de El Salvador)
CPI	Consumer Price Index
DIVAGRO	Agricultural Diversification Program (Programa de Diversificación Agrícola)
DRC	Domestic Resource Cost
EPC	Effective Protection Rate
FEDEPRICAP	Central American and Panamian Federation of Private Enterprises Federación de Entidades Privadas de Centroamérica y Panamá
FOB	free on board
FOMEX	Comité del Fomento de Exportaciones
FTZ	Free Trade Zone
FUSADES	Salvadoran Foundation for Social and Economic Development (Fundación Salvadoreña para el Desarrollo Económico y Social)
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GOES	Government of El Salvador
GSP	Generalized System of Preferences
IDB	Interamerican Development Bank
IMF	International Monetary Fund
INAZUCAR	National Institute for Sugar (Instituto Nacional del Azúcar)

INCAFE	National Coffee Institute (Instituto Nacional del Café)
IRA	Food Stabilization Institute (Instituto Regulador de Abastecimiento)
MAG	Ministry of Agriculture (Ministerio de Agricultura y Ganadería)
MFN	Most-Favored-Nation
MIPLAN	Ministry of Planning (Ministerio de Planificación)
NAFTA	North American Free Trade Agreement
NPC	Nominal Protection Coefficient
NRP	National Reconstruction Plan
OIRSA	Regional Organization on Photosanitary Regulations (Organismo Internacional Regional de Sanidad Agropecuaria)
OMO	open market operations
PAM	Policy Analysis Matrix
PARSA	Regional Support Program on Photosanitary Regulations (Programa de Apoyo Regional de Sanidad Agropecuaria)
ROCAP	Regional Office for Central America and Panama (Oficina Regional para Centroamérica y Panamá)
UCAFES	Union of Coffee Cooperatives of El Salvador (Unión de Cooperativas de Cafetaleros de El Salvador)
USAID	United States Agency for International Development
VAT	Value-added tax

ABSTRACT

In El Salvador, a number of macroeconomic and agricultural policy reforms have taken place since 1989. The macroeconomic adjustment while necessary, has not been sufficient, to modernize agriculture and re-establish the sector as a leader in economic growth and rural development. This study assesses the extent to which current macroeconomic and sectoral policies are conducive to attracting investment into agriculture, the effectiveness of existing export promotion programs, and the opportunities and challenges posed by economic integration. While few pricing policy impediments remain for renewed investment and trade, several glaring infrastructural and institutional constraints exist. They include a weak agricultural research and extension service; institutional support mechanisms, particularly excessive delays in the disbursement of fiscal incentives; poor contract enforcement, high overland transportation rates. On the policy front, the overarching macroeconomic weaknesses are an appreciating real effective exchange rate and lack of success in reducing the fiscal deficit as a percent of GDP. The first weaknesses reduces export competitiveness and the second one necessitates a very strong monetary policy which in turn reduces the amount of loanable funds available to businesses.

The report applauds the development of a clear export strategy, which is ongoing. To aid this planning process, major quantitative studies are recommended to assess the competitiveness of Salvadoran products and estimate the likely impacts of various trade integration scenarios. Specific interventions to relieve some of the constraints would be increased investments in domestic infrastructure, particularly reconstruction of roads and port modernization, which will greatly lower the cost of exporting. Also a coordinated extension program which reaches all sizes of farms would help El Salvador to expand its nontraditional agricultural exports and improve productivity in traditional crops. The current price band policy instrument should be maintained and efforts taken to improve the marketing structure of grains so that a higher farmer income impact could be obtained. Improvement of the agricultural market information service in Ministry of Agriculture will aid farmers in making better production and marketing decisions. On the institutional front, strong efforts are needed to improve the administrative efficiency of the Ministries of Economy and Agriculture, the Internal Revenue Service, and the Customs Services. Failures to provide efficient and timely services to exporters and investors increase transaction costs and may discourage potential entrants.

ACKNOWLEDGMENTS

This study was conducted by a three-person team in the field: Manual Vanegas, Mark Wenner, and Amy Angel, but with substantial assistance from Patti Kristjanson and Gary Ender. Vanegas drafted chapters 3 and 5; Wenner wrote chapters 1,2,4, and part of 7; Angel drafted chapter 6; Kristjanson drafted most of chapter 7; and Ender wrote the excutive summary and conclusion.

The study was supervised by Mike Wise of the Agriculture and Natural Resources Offices of USAID/San Salvador. The team is grateful for his valuable guidance for the study. Special thanks also to Sandra Milla, Ana Wilma de Sadat, and Gloria Oliva of USAID/ANR for their support and to José Antonio Peña and William Flores for their assistance in transportation.

All of the public and private sector individuals who graciously received us on very short notice and generously shared their insights and provided information are especially thanked. Without their assistance the report would not have been possible.

The team also gratefully acknowledges the diligent assistance of Ernesto Urroz and Yolanda Cabrera de Gonzales in preparing the original document and the logistical assistance of Blanca de Velasquez, all with FUSADES.

In the Bethesda office of Abt Associates Inc., Kathleen Poer served as task manager; Marsha Strother and Angela Tyler provided excellent secretarial support; Jack Hopper edited; Gary Ender provided technical review; and Bonald Somervell and Morton Brooks reproduced the document. Responsibility for errors of judgment or fact rest with the authors.

K

EXECUTIVE SUMMARY

The change in the Salvadoran government in 1989 led to policy changes to decrease government intervention and to enhance the role of the private sector in the economy. Recently, the Government of El Salvador (GOES) has liberalized its trade regime to encourage faster economic growth and export diversification. The Government has also implemented several policy reforms in the agricultural sector in marketing, land tenure, and agricultural finance. Most food price controls and subsidies have been eliminated, and a price band policy stabilizes domestic prices for some commodities while linking them to world market conditions. The Government has also taken steps to renew regional economic integration as a means of expanding market size, improving the efficiency of resource allocation, and in preparing for expected preferential trade access negotiations between the Central American bloc and the United States. With the end of the war, business confidence may improve and yield higher investment rates. Successful completion of macroeconomic stabilization and liberalization of trade, agriculture, and the financial sector have provided clear aggregate-level incentives and contributed to an economic rebound.

This study examines current constraints and incentives to agricultural trade and investment with a view to identifying sound, feasible policy alternatives that help restore and increase agricultural production, productivity, and exports.

In the coming years, the principal macroeconomic challenges GOES will face are to increase export value and diversify the export base, attain greater fiscal discipline, and formulate an efficient strategy for negotiating and managing economic integration. While a realistic foreign exchange rate and the adoption of liberal commercial policies are necessary conditions for maintaining and improving international competitiveness, they are not sufficient. A sound agricultural policy; timely and accurate market information; commodity contract enforcement; coordinated export promotion; the quality and reliability of irrigation, electricity, transportation, and telecommunications services; and the quality of human capital are other important factors.

The price band mechanism for staple commodities established in El Salvador has been relatively easy to implement and is well administered. Supply and demand forces determine market clearing prices at all levels of the marketing chain. The full effect on farmers' incomes has not been felt, however, because there are imperfections in the domestic marketing process. For economic sustainability, the price band policy should continue. Improvement in farmers' incomes in the long run will increase the size of the domestic market for nonagricultural goods and services. In terms of social sustainability, until viable production alternatives are perceived by farmers, elimination of the price band system for these basic commodities could trigger social disruption in rural areas.

Information on domestic and international production, prices, and the market situation is not being rapidly disseminated throughout the country. Bits and pieces of such a service are available, but only in certain locations and through different public and private institutions. A more unified and better coordinated information front comprised of FUSADES, MAG, COEXPORT, FOMEX, and the Ministry of Economy should be encouraged and financially

supported. It should cover a larger clientele of both domestic and foreign businesses and be available to individuals in all regions of the country.

The most serious legal problem for producers of export goods is the risk of contract noncompliance. Export buyers in other countries are one source of the problem, but the greatest fault lies with direct exporters in El Salvador, who receive the export goods from producers but do not pay once the export transaction is made. These individuals have taken advantage of agricultural cooperatives in particular, although the risk is great for every size of agricultural producer or processor. A serious restructuring of contract compliance enforcement, including reformulation of existing legislation, is necessary to reduce the risks of agricultural producers who consider producing nontraditional crops for export.

Salvadoran public authorities have actively pursued export promotion activities, but these actions have often lacked consistency and effectiveness. One of the most effective policy developments has been the creation of CENTREX, a centralized office for export registration. However, other programs, such as the 6-percent duty drawback and return of value-added tax, are poorly administered and subject to lengthy delays in processing. The most troubling aspects are the lack of a clear national export strategy and the lack of coordination among the significant actors in the economy. FOMEX, a committee broadly representative of various economic interests in the country, is attempting to address this need.

Another important step would be to centralize all export registration activities in one office. The process of bringing goods through customs is still cumbersome and expensive, both in terms of time and in terms of bribes that must be paid. A strong anticorruption campaign in the customs service and raising the pay of customs agents to a higher grade may help lower the level of extortion. A restructuring of the paperwork process and the service itself would also lead to gains in efficiency.

The decline in investment in El Salvador resulted not only from lower public investment in response to deficit pressures, but also from lower private investment due, in part, to the uncertainty at the start of the adjustment program and structural reforms. The reductions in public investment in infrastructure and human capital seriously jeopardized the resumption of private investment. In order to reactivate the productive capacity of the agricultural sector and to ensure its sustainability, an investment strategy should be pursued that covers the following areas: irrigation, education, research and extension services, electricity generation, continued improvements in roads and ports, and privatization of the telephone system.

El Salvador is active in the global wave of trade liberalization. Its participation in the renewed CACM will continue to expand its exports to the region, but growth in basic agricultural commodity exports is limited by a lack of growth in demand. Value-added foods hold greater potential. The future implementation of NAFTA also holds challenges for Salvadoran agriculture because its agricultural exports to the United States are important to the sector. Some trade diversion in fruit and vegetable exports is expected as Mexico would expand its share of the U.S. import market. However, the actual degree of these changes requires a

quantitative model for estimation. Accession to NAFTA by the Central American countries in and of itself will not greatly increase El Salvador's exports to the United States, except perhaps for textiles and sugar if more favorable treatment were acquired. The move to join NAFTA would, however, cement Central America's trade relationship with the United States and put aside doubts cast by the future of the CBI. Greater opportunities for El Salvador would arise if NAFTA were expanded to include South American countries, thus opening trade channels previously underutilized. El Salvador should seriously pursue its bid to join NAFTA, as soon as possible and in concert with the other countries of Central America. As a bloc, their negotiating power is much greater than it is individually.

In the agricultural sector, the challenge the Government faces is to reconcile the need for agricultural exports with the strong desire of farmers to return to staple cultivation. In the medium run, more land will be brought back into the cultivation of staples with low yields. While this process produces food security for many households, it does not help the country's balance of trade, nor does it maximize the country's comparative advantage in the production of agricultural commodities. Because the supply of land in El Salvador is not adequate to accommodate all those who would like to remain farmers on economically sustainable plots, the Government will be forced to both promote crop and livestock activities with higher returns and make provision for many rural individuals to leave farming. Many of these people may find employment in local agroindustries, if the economic climate and local infrastructure are conducive to their establishment. These factors indicate the need for a major education program, both to improve agricultural productivity and to prepare individuals for nonfarm employment. the fiscal deficit is another key problem, an increase in land taxes, while politically difficult at this stage, might in the medium term promote the use of land for higher-return commodities, some of which might be exported.

1. INTRODUCTION

1.1 Statement of Problem

The Government of El Salvador recently liberalized its trade regime to encourage faster economic growth and export diversification. The Government has also taken steps toward renewing regional economic integration as a means to expand market size, improve the efficiency of resource allocation, and to prepare for the expected preferential trade access negotiations between the Central American bloc and the United States. The changes in economic policies and intellectual outlook represent a dramatic departure from the past. The new orientation and the current international movement toward the creation of trading blocs create both new challenges and new opportunities in trade and investment.

Prior to 1989, the country pursued a strategy of import substitution industrialization (ISI), characterized by an overvalued, fixed exchange rate, a high degree of industrial protection, and pronounced reliance on the Central American Common Market (CACM) for trade expansion. The ISI strategy along with membership in the Central American customs union and favorable external factors permitted strong export growth rates until the late 1970s. The outbreak of civil conflict in 1980 triggered an emigration of about 1 million people, destroyed billions of dollars worth of infrastructure, and depressed economic activity.

Civil unrest in two other CACM member states, Guatemala and Nicaragua, combined with adverse international developments (deteriorating terms of trade for primary commodities, rising real interest rates, and oil price increases) contracted intraregional demand for Salvadoran products and created a CACM payments crisis. The net result was dissolution of CACM and five consecutive years of negative economic growth between 1979 and 1984. Despite large infusions of foreign assistance and partial stabilization attempts, the economy showed no signs of recovery until 1989–90 after a change in administration and an abatement in the civil conflict.

With the end of the war in 1992, business confidence is expected to improve and yield higher investment rates. The successful completion of macroeconomic stabilization, trade, agricultural, and financial liberalization have, between 1989 and 1992, provided clear aggregate-level incentives and contributed to an economic rebound. Whereas the export growth rate declined 8.9 percent between 1985 and 1989, it increased 1.3 percent between 1990 and 1992, and the value approximated that of the late 1970s. Unfortunately, export growth rates between 1990 and 1992 have been considerably less than the import growth rates, which increased an annual average of 9.8 percent. As a result, the merchandise balance of trade worsened from $600 to $839 million.

Consequently, substantial export growth will be needed in the near to medium term in order to narrow the trade deficit and to offset the likely decline in concessional aid and possible drops in remittances. Success in closing the gap and reducing this external account vulnerability will hinge not only on external demand and access factors but also on the degree to which the Salvadoran Government can create an auspicious economic and institutional environment, as well as the extent to which government, private businesses, and labor can effectively cooperate in pursuit of common export and investment goals.

Salvadoran government authorities have been successful in adopting a flexible exchange rate regime, lowering average tariff rates, drastically reducing quantitative restrictions, eliminating export taxes, and freeing agricultural prices. The remaining challenges for both government authorities and entrepreneurs are how to minimize or remove micro-level factor market imperfections and improve public sector administrative efficiency and market information flows so that an even stronger export supply response and higher gross domestic investment rates can be realized. Neutrality in policy incentives and public sector administrative efficiency should be the goals.

1.2 Objectives of the Study

This study aims to:

- Identify and assess how macroeconomic and sectoral policies affect incentives to invest in the agricultural sector and to trade agricultural products.
- Evaluate the effectiveness of existing export promotion policies and pinpoint key policy and institutional constraints to improved performance.
- Identify the infrastructural investments needed to facilitate agricultural export growth.
- Predict the likely domestic impacts of the North American Free Trade Agreement (NAFTA) and a revived Central American economic integration movement.
- Identify a few crops/products with export potential and list the needed research, extension, and marketing interventions needed to realize this potential.

The study will serve as the basis for policy recommendations and for the design of a multifaceted agricultural sector modernization project to be financed by the United States Agency for International Development (USAID).

1.3 Organization of the Study

The report is divided into six substantive chapters: (1) a review of macroeconomic and trade policies and trade performance since 1989; (2) an overview of agricultural and food

policies; (3) an evaluation of existing export and direct investment incentives; (3) a catalogue of infrastructural constraints to enhanced export performance; (4) an assessment of the implications of renewed regional integration and the likely impacts of NAFTA; (5) an identification of the types of ancillary support needed to realize the full potential of promising agricultural and food export commodities; and (6) a summary of findings, recommendations, and suggestions for further research and analysis.

2. TRADE POLICIES AND PERFORMANCE IN RECENT YEARS

2.1 Review of Recent Economic and Agricultural Trade Developments

The Salvadoran economy, after a period of anemic real GDP growth between 1985 and 1989 of 1.6 percent annually, has rebounded to an annual average of 3.8 percent for the 1990-1992 period. During the entire decade of the 1980s and especially during the latter half, the combination of armed conflict, low coffee prices, the collapse of the Central American Common Market (CACM), and inappropriate economic policies resulted in falling output, slow income growth, and increasing unemployment.

Since June 1989, the Cristiani administration has implemented a sweeping set of economic reforms. The new macroeconomic policies, in conjunction with good weather, and extraordinary levels of foreign grants, external loans, and worker remittances, help to explain the upturn (Table 2.1). Other significant achievements have been inflation control, with rates falling to 11.3 percent in 1992; a relatively stable nominal exchange rate, which has also helped to prevent inflationary expectations and attract capital inflows; and establishment of real positive rates of interest, which stimulates savings mobilization and intermediary profitability and capitalization. The chief remaining weakness in the macroeconomic variables is the lack of success in reducing the fiscal deficit as a percent of GDP. The National Reconstruction Plan, which calls for significant expenditures to reintegrate the excombatants into civil society, contributed to the increase in the indicator in 1992 when donor assistance was below expected levels. The other vulnerability is the economy's high dependence on net transfers (official aid plus remittances), which totaled $908.3 million in 1992, up from $698.2 million the year before. This high level of transfers keeps the current account deficit small, given the marked deterioration of the merchandise trade balance.

In the coming years, the principal challenges the Government of El Salvador will face are increasing export value and diversifying the export base, attaining greater fiscal discipline, improving public sector administrative efficiency, and adopting effective social policies in the areas of health, education, and environmental protection. Export growth is critical to minimizing external accounts vulnerability and employment generation. Greater fiscal discipline is also needed to relieve the pressure for strong monetary policy which, if prolonged, may have contractionary effects. Most difficult will be the task of reconciling cuts in public expenditures with increases in public administrative efficiency so as to assure that drops in the public deficit translate into higher output growth and not just to higher transaction costs of doing business.

Table 2.1. Selected Macroeconomic Indicators

Item	Units	1980-85	1986	1987	1988	1989	1990	1991	Prelim. 1992
Gross Domestic Product /1	Millions of US$		4160.9	4432.2	4683.2	4956.1	5414	5970	6447
Per Capita Income	US 1988 Dollars		1046	1054	1051	1048	1059	1077	1108
Merchandise Exports	Millions US$ (fob)		778	590	611	498	580	588	587
Merchandise Imports	Millions US$ (fob)		902	939	967	1090	1180	1294	1426
Merchandise Balance	Millions US$ (fob)		-124	-349	-356	-592	-600	-706	-839
Remittances	Millions US$		134.5	168.7	194.4	203.7	322.1	517.9	680
Official Aid	Millions US$		225.5	380.1	289.4	284.2	225	180.3	228.3
Outstanding External Debt at end of year	Millions US$		1254.5	1312.1	1860.2	2115.4	2131	2221.3	2382.3
Total Export/GDP	Percent		18.1	13.3	13	10	10.8	9.8	9.1
Real GDP Growth Rate (Constant 1962 Colones)	Percent	-12.9	0.6	2.7	1.6	1.1	3.4	3.5	4.5
Inflation Growth Rate	Percent	15.7	31.9	24.9	19.8	17.6	24	14.4	11.3
Gross Domestic Investment/GDP	Percent		13.3	12.4	12.8	15.3	11.8	13.8	15
Fiscal Deficit/GDP (excluding donations)	Percent	11	3.9	4.4	4.5	6.8	2.7	4.4	4.8
Fiscal Deficit/GDP (including donations)	Percent	9.2	2.3	1.8	2.5	5.2	0.8	2.5	2.7
Average Annual Lending Interest Rate /2	Percent	13	15	15	17	20	16	18.3	18.38
Terms of Trade (1980=100)	Index		177.6	131.9	144.7	125.7	117.2	119.9	108.3
Nominal Exchange Rate	Colones per US$	2.5	5	5	5	5.6	7.6	8.03	8.5

Sources: IMF Financial Statistics, InterAmerican Development Bank "El Salvador Socioeconomic Report", Central Reserve Bank of El Salvador
Notes: /1 Dollar GDP calculated using constant purchasing power parity. /2 Set preferential interest rate for 1 year production loan by small coffee, basic grains, microenterprise, and exports outside outside Central America. Rates were liberalized in March of 1992.

Last, improving educational and health care services as well as protecting the resource base of the country will be necessary to alleviate the high incidence of poverty and to generate an even more productive labor force.

2.1.1 Structure of the Economy

The agricultural sector has led the economic recovery. After years of sluggish growth, agriculture's share in real GDP grew at a 7.4-percent rate in 1990, dipped to zero growth in 1991 due to drought conditions, and rebounded in 1992 to 6.7 percent (Table 2.2). Historically, agriculture has been the dominant sector, accounting for approximately 23 percent of real GDP, 50-60 percent of total export receipts, and 46 percent of employment. About 34 percent of value added in the agricultural sector in 1992 was generated by the principal export crops: coffee, sugarcane, cotton, and shrimp. This percentage has been fairly constant over the the last five years. Basic grains (corn, bean, rice, and sorghum) represent another 20 percent of agricultural value added, and together, cattle raising and poultry account for 33 percent (Central Bank Statistics).

In comparison, the manufacturing sector real value added grew 6.1 percent in 1992, compared with 4.8 percent in 1991 and 2.9 percent in 1990. Manufacturing activity is beginning to eclipse agriculture in terms of economic importance, accounting for 23 percent of domestic output in 1992 and employing 12.5 percent of the workers registered in the social security system. It is believed that more workers are employed but that they are in the informal economy, and unregistered. Appromixately 20 percent of manufacturing GDP is exported, with two-thirds of these exports bound for other Central American markets. In manufacturing, the leading subsector is food products, contributing 48 percent of real value added in recent years. Outside of petroleum products, the fastest growing subsectors in 1992 were clothing and footwear with 7.5 percent, textiles with 7.2 percent, tobacco with 6.4, and food products with 6.1 percent rates of growth (Central Bank Statistics).

In the agriculture area, the specific commodities that showed dynamism in the latter years were sugar, beans, and sorghum. With the end of the war and good weather in 1992, the area planted in corn, beans, sorghum, and rice have increased to 9.4 percent, 19.4 percent, 3.1 percent, and 1.5 percent, respectively, over 1990 figures. Yields have remained constant for all except sorghum, probably reflecting less credit availability and limited access to improved technology. Nonetheless, the gains in volume produced have made the country self-sufficient in grains for human consumption.

2.1.2 Composition, Balance, and Direction of Merchandise Trade

In the 1980s, sharp drops in international prices for coffee, the leading export crop, reduced the total value of exports in most successive years (Table 2.3). Prices fell 58 percent from $134 per quintal in 1985 to $55.4 per quintal in 1992. Thus, while the area planted remained constant, yields dropped due to insecurity in the rural areas as a result of the war and decisions on the part of owners to cut costs. Cotton, a major export crop in the 1970s, has

Table 2.2. Change in Agriculture Value Added[1] (percent)

Item	1987	1988	1989	1990	1991	1992 /2	Avg. '86-89	Avg. '90-92
Agriculture	2	-4	-1	12	-2	10	-1.24	6.74
Exports:	5	-19	-1	19	-1	5	-4.99	7.99
Coffee	7	-19	1	21	-2	3	-3.43	7.19
Cotton	-9	-16	-29	-29	-24	0	-18.01	-17.67
Sugar Cane	-7	-20	-5	24	19	20	-10.58	20.86
Grains:	-2	29	-3	5	-8	22	8.02	6.67
Corn	32	3	-1	2	-16	25	11.39	3.81
Beans	-51	133	-22	30	16	12	20.26	19.25
Rice	-21	36	11	-9	6	12	8.81	2.89
Sorghum	-81	496	-2	11	-2	34	137.54	14.35
Other:	-2	-1	1	2	7	2	-0.62	3.73
Panela	2	0	-2	0	0	0	-0.15	0.00
Tobacco	-11	5	-12	-3	4	0	-6.02	0.04
Cotton seed	-13	-17	-28	-33	-13	-14	-19.36	-20.04
Hemp	9	-16	14	2	15	0	2.43	5.56
Kenaf	30	2	38	0	15	0	23.09	5.13
Others[2]	-2	1	2	4	6	3	0.14	4.37
Livestock	6	4	4	1	1	1	4.51	1.12
Forestry	0	-1	1	1	1	1	0.00	1.02
Fisheries	-8	4	-14	-17	0	3	-6.01	-4.56
Apiculture	13	-4	-9	3	6	3	0.42	4.27
Poultry	2	6	5	2	4	3	4.27	3.20

Source: Quarterly Journal, Central Reserve Bank of El Salvador, March 1993.

[1] Preliminary Figures

[2] Included Sesame, balsam, coconut, fruits and vegetables.

Table 2.3. Exports by Principal Groups

Item	1985	1986	1987	1988	1989	1990	1991	Prelim. 1992
Total Exports	695	755.0	591.0	609.6	497.5	580.2	588.0	587.3
Traditional Exports	526	594.0	386.0	393.6	252.8	294.8	272.1	214.2
Coffee								
Value (Million $)	464.0	547.0	352.0	358.1	228.6	258.9	219.5	149.5
Volume (Million quintals)	3.4	2.9	3.4	2.7	2.1	3.2	2.8	2.7
Area (Thousand MZ)	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0
Yield (QQ/MZ)	16.6	12.8	13.7	11.2	11.3	13.7	13.4	13.8
Unit Price	134.0	186.0	104.0	131.2	111.0	80.1	79.4	55.4
Cotton								
Value (Million $)	29.0	5.0	2.0	0.3	0.7	1.3	0.7	1.5
Volume (Million quintals)	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0
Area (Thousand MZ)	45.0	26.0	23.0	19.0	15.0	11.0	7.0	7.0
Yield (QQ/MZ)	11.1	10.9	11.2	11.6	10.2	10.3	11.9	12.0
Unit Price	56.0	34.0	40.0	39.0	47.6	61.9	88.6	78.9
Sugar								
Value (Million $)	23.0	25.0	12.0	19.2	13.5	20.3	32.0	45.0
Volume (Million quintals)	2.4	2.1	0.8	1.7	0.6	1.0	1.7	3.6
Area (Thousand MZ)	59.0	59.0	59.0	54.0	47.0	59.0	64.0	71.0
Yield (Short ton/MZ)	69.5	61.8	57.7	50.5	54.6	54.0	59.6	64.0
Unit Price	10.0	12.0	15.0	11.3	21.7	20.8	18.8	12.5
Shrimp								
Value (Million $)	10.0	17.0	21.0	16.0	10.0	14.3	19.9	18.2
Volume (Thousand Metric Tons)	2.5	4.3	3.5	3.1	2.2	3.1	3.2	2.8
Unit Price	4.0	4.0	6.0	5.1	4.6	4.6	6.2	6.5
Nontraditional exports								
Value (Million $)	169.0	161.0	205.0	216.0	244.7	285.4	315.9	373.1
To CA Common Market	96.0	91.0	120.0	140.0	160.6	173.0	193.7	248.0
To Rest of the World	73.0	70.0	85.0	76.0	84.1	112.4	122.2	125.1

Source: Central Reserve Bank of El Salvador
Notes: /1 Included Sesame, balsam, coconut, fruits and vegetables
Quintal = 101.2 lbs = 46 kgs; Manzana = .699 hectares; Short ton = 2,000 lbs

virtually disappeared in economic importance, with area planted falling from 45,000 manzanas to 7,000 in the 1985-92 period. This was not caused by a decrease in international prices (they actually rose), but by high production costs and the targeted destruction of many cotton farms, which were concentrated in the conflictive eastern part of the country. Shrimp export values show considerable variability but this is due to fluctuating catch volume.

As a result of the coffee collapse and trade reform, which sub-stantially lowered tariff and nontariff barriers, two major changes have occurred. The merchandise balance of trade has worsened (Figure 2.1) and new im-petus has been given to nontraditionals products. The export base has broadened in the light of low profitability in traditional and grain crops, and nontraditional exports are more important than traditionals (Figure 2.2).

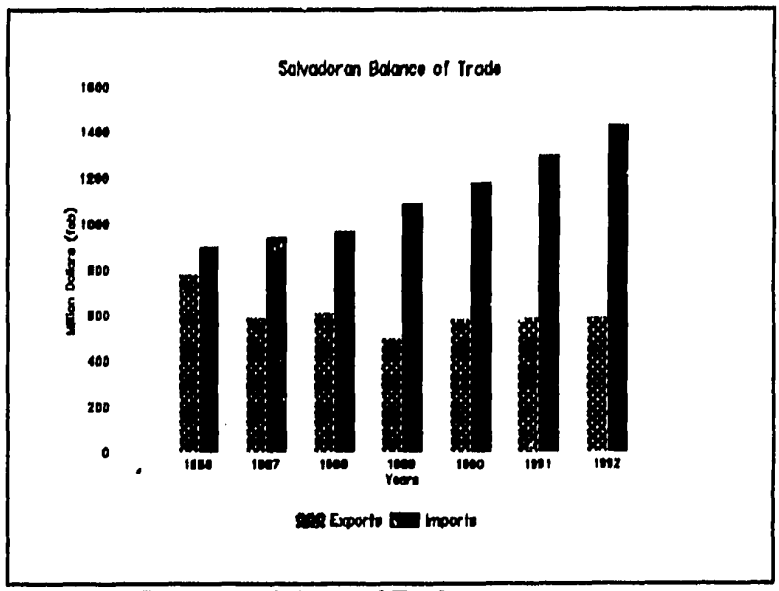


Figure 2.1: Salvadoran Balance of Trade

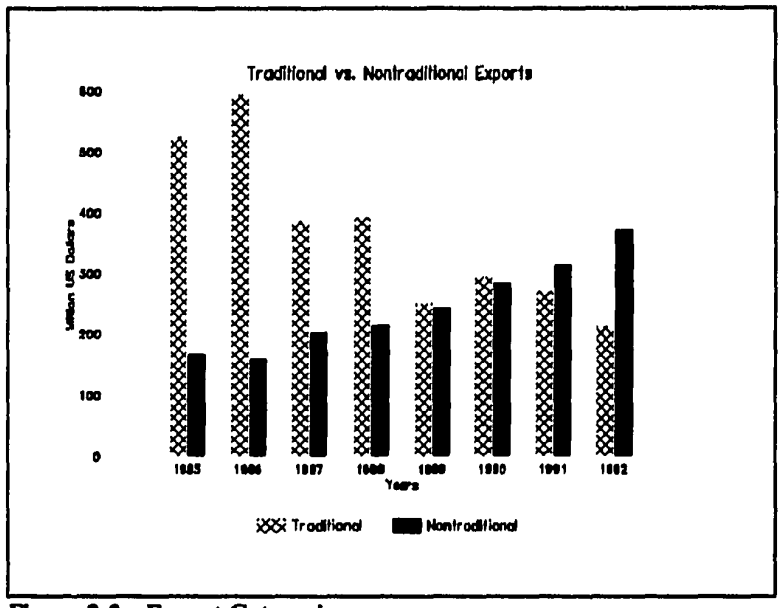


Figure 2.2: Export Categories

9

The leading non-traditional export pro-ducts in 1992 in order of growth performance were clothing and textiles, soaps, agricultural hand implements, sweets and candies, honey, refrigerators, cosmetics and perfumes. In the food and agricultural area, many items had mixed performances, advancing in the Central American market but declining in the extraregional market. For example, fresh and dried fruits, instant coffee, and sesame all exhibited triple-digit rates of growth in the Central American market but declined in the extraregional market. Fruits and sesame exports to other Central American states began from very small bases in 1991, which explains the high growth. In terms of dollar value, the products with more than $20 million dollars worth of export sales were medicine, paper and carton packaging, and clothing and textiles (MIPLAN).

These changes in the structure of Salvadoran exports are presented graphically in Figures 2.3 and 2.4. On the agricultural side, only sugar exhibits an upward trend while on the manufacturing side, textiles, chemicals (mostly medicines and cosmetics), and paper products show a positive trend. In summary, El Salvador is in the midst of reorientation, with agriculture declining and manufacturing increasing. Because of the size of the agriculture sector and the employment generation, however, a twin strategy of improving quality and productivity as well as placing traditional products in new markets and of investing in promising nontraditional crops may be appropriate.

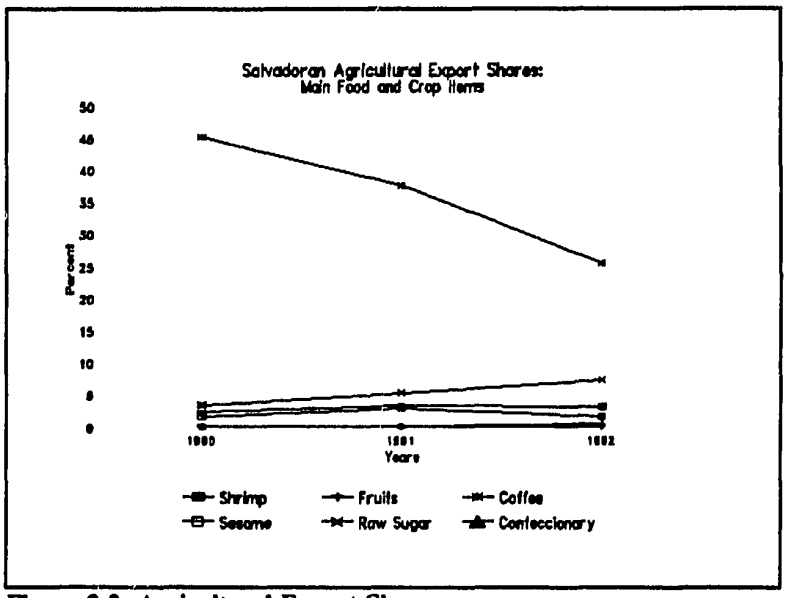


Figure 2.3: Agricultural Export Shares

10

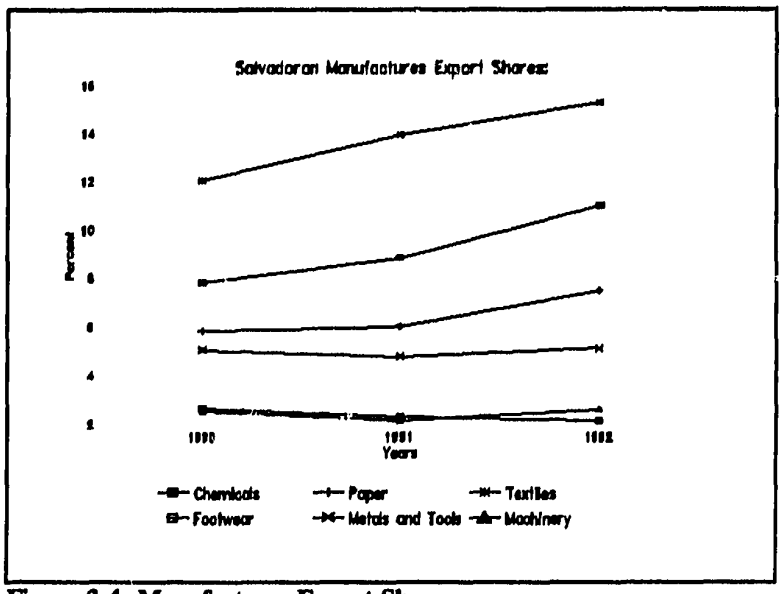


Figure 2.4: Manufactures Export Share

In terms of direction, the main trading partners have remained in the same order of importance, but Mexico can emerge as a potentially important partner. On the export side, the United States and other Central American countries are the leading destination markets. In 1992, the United States absorbed 35.2 percent of El Salvador's exports, and other Central American countries 42 percent, with Guatemala and Costa Rica being the two leading markets. Germany historically was a prominent market, principally a coffee buyer, but with the collapse in coffee prices, its percent share of value imported has dropped accordingly while quantity share of coffee remained stable.

On the import side, the United States and Guatemala have maintained their dominant positions and no change is discernible for Asian and European countries. The only import source that showed appreciable change over time was Mexico, which surged to a 15-percent share in 1991.

2.2 Macroeconomic and Trade Policies

The three important policies that directly determine the openness of a trade regime are: exchange rate system, tariff structure, and quantitative restrictions. If foreign exchange restrictions exist, capital movements are impeded and traders incur high transactions costs which lower their competitiveness. If the exchange rate is overvalued, exporters are disadvantaged and import demand receives an added stimulus with possible negative consequences for the current account position. High tariffs can generate substantial government revenue if exemptions are minimal and administration is efficient. At the same time, inefficient industries tend to be protected, causing losses in consumer welfare and misallocation of resources. Quantitative

restrictions such as quotas, licensing, and state marketing monopolies, create rent-seeking opportunities and barriers to entry, preventing the efficient allocation of resources and limiting growth. Nontariff barriers such as overly rigorous quality standards, the capricious application of safety and quality standards, or marketing orders can also serve to insulate inefficient domestic producers and increase costs for domestic consumers.

Table 2.4. Direction of Trade (Percent of Total)

Region/Country	1988	1989	1990	1991	1992
EXPORTS					
North America:					
United States	39.2	35.9	33.1	33.3	35.2
Canada	3.0	2.5	1.1	0.9	0.8
Mexico	0.2	0.6	1.5	1.6	2.0
Asia:					
Japan	4.5	3.0	1.1	2.7	0.8
Hong Kong	0.1	0.1	0.0	0.0	0.0
Europe:					
Germany	23.1	17.8	15.7	18.4	5.8
Netherlands	2.7	2.7	8.0	0.9	2.1
Spain	0.5	0.0	0.5	0.5	0.3
Central America:					
Costa Rica	5.3	8.1	8.2	7.7	8.8
Guatemala	15.1	20.6	17.3	18.8	21.8
Nicaragua	0.5	0.6	1.6	3.6	4.9
Honduras	2.1	3.1	3.0	3.8	4.7
Panama	1.1	1.1	1.5	1.7	2.0
Belize	0.2	0.4	0.0	0.0	0.0
IMPORTS					
North America:					
United States	37.4	40.1	42.6	40.6	40.5
Canada	1.0	0.8	1.1	0.9	1.0
Mexico	8.0	8.4	7.7	15.3	6.5
Asia:					
Japan	5.0	4.3	3.5	4.8	5.0
Hong Kong	0.3	0.3	0.3	0.2	0.4

Table 2.4. Direction of Trade (Percent of Total)					
Europe:					
Germany	4.3	4.7	4.4	4.2	4.9
Netherlands	1.9	1.6	1.7	1.3	1.2
Spain	0.8	1.1	0.7	0.8	0.8
Central America:					
Costa Rica	4.8	4.2	2.9	2.9	3.5
Guatemala	13.2	11.3	11.5	11.6	11.7
Nicaragua	0.2	0.8	0.8	1.2	0.9
Honduras	1.4	1.1	1.2	1.3	1.7
Panama	0.6	0.8	0.6	1.0	3.9
Belize	0.0	0.0	0.0	0.0	0.0
Source: Central Bank of El Salvador					

Often, the three main justifications for maintaining restrictive trade practices despite their distortionary impacts are the infant industry argument, the theory of optimal taxation, and macroeconomic vulnerability. Proponents of the first defense say with good cause that immature industries with high growth potential may need time to improve efficiency and marketing acumen before facing the onslaught of better financed and more experienced foreign competitors. In practice many infant industries neither mature nor achieve international standards of product quality and management efficiency. Proponents of the second line of argument state that if a country is the dominant supplier of a good with an inelastic foreign demand elasticity, then an export tax set equal to the inverse of the elasticity can yield positive benefits for the applying country. However, most developing countries do not enjoy market power so this is a special case. Last, and most important, many governments do not have high tax collection efficiency and have not made the necessary investments to improve in this area because collecting export taxes and tariff duties is more convenient. Thus, trade reform may decrease tax revenue, and obtaining bridge financing until a new tax system is well established may be necessary.

While maintaining a realistic foreign exchange rate and adopting liberal commercial policies may be necessary conditions for maintaining and improving international competitiveness, they are not sufficient ones. Inflationary control, the availability of credit, the quality and reliability of power generation, transportation, and telecommunications services, labor costs, and the quality of human capital are also important ancillary factors. This section reviews these factors in the Salvadoran context.

2.2.1 Exchange Rate Regime

Since June 1, 1990, El Salvador has had a unified exchange rate market and a flexible management policy. The exchange rate is determined through supply and demand of exchange

13

rate houses and commercial banks. The Central Bank continues to handle foreign exchange earnings from coffee exports, official transfers and disbursements, and debt servicing flows of the public sector at a reference exchange rate that is equal to the previous week's average rates established by commercial banks and exchange rate houses. Because of massive inflows of dollars from expatriates and international donor organizations, the nominal exchange rate has remained stable. However, Salvadoran inflation rates have been higher than those of leading trading partners resulting in an appreciation of the real effective exchange rate (Table 2.5). The Central Bank has reacted by pursuing a very tight monetary policy and attempting to sterilize dollar inflows through high reserve requirements on dollar accounts. The key policy question is whether the Central Bank should intervene more forcibly in currency markets, impose exchange controls, use differential taxing schemes of interest income from foreign currency deposits and domestic currency accounts, or do nothing.

The foreign exchange regime reform process started in the Duarte administration with a change in the fixed exchange rate from 2.5 to 5 colones per U.S. dollar on January 21, 1986, then relaxation of some of the advance import deposit requirements for letters of credit in 1988. The reforms, however, accelerated under the Cristiani administration as the pressure to devaluate became more intense with the black market exchange rate 20 percent higher than the official. Besides the exchange rate liberalization, foreign exchange controls were completely dropped. The chronology of the elimination of foreign exchange controls follows:

Table 2.5. Nominal and Real Effective Exchange Rates

Year	Quarter	Nominal Exchange Rate (colones per U.S. $: period avg.)	Percent Change	Real Effective Exchange Rate (1980=100) /2	Percent Change
1988	I	5.00		148.4	
	I	5.00	0	157.6	6.19
	III	5.00	0	169.4	7.48
	IV	5.00	0	168.8	-.3
1989	I	5.00	0	155.0	-8.2
	II /1	5.00	0	156.2	.7
	III	5.00	0	158.5	1.5
	IV	5.00	0	165.5	4.4
1990	I	5.63	12.6	149.9	-9.4
	II	7.14	26.8	143.7	-4.1
	III	7.81	9.4	138.3	-3.75
	IV	8.06	3.2	134.5	-2.74

Year	Quarter	Nominal Exchange Rate (colones per U.S. $; period avg.)	Percent Change	Real Effective Exchange Rate (1980=100) /2	Percent Change
1991	I	8.02	-.4	139.0	3.3
	II	7.97	-.6	146.5	5.4
	III	7.98	.12	150.9	3.0
	IV	8.08	1.3	146.3	-3.1
1992	I	8.12	.4	145.7	-.9
	II	8.17	.6	145.7	0
	III	8.42	3.0	143.8	-1.3
	IV	8.73	3.6	152.8	6.2

Source: IMF El Salvador Statistical Appendix, April 21, 1993.
Notes: /1 Denotes beginning of Cristani Administration
/2 Increase denotes appreciation.

- June 1989: Restrictions on the maintenance of foreign currency-denominated deposits eliminated.

- January 1990: Minimum maturity requirement for letters of credit for imports from outside Central America extended from 90 to 180 days.

- December 1990: Limitations on payments for travel, education, and medical services abroad eliminated.

- December 1990: Maturity requirements on aforementioned letters of credit totally eliminated.

Appreciation in a country's real effective exchange is theoretically supposed to reduce the competitiveness of export producers. The following regression analysis of quarterly data supports this contention. The test is whether the sign on the real effective rate index is negative and significant.

In the case of nontraditional exports, the leading commodities are melons (honeydew, cantaloupe, and watermelons), the appreciation of the real effective exchange did indeed have a negative effect on aggregated fruit exports. If the exchange rate were more realistic or better aligned, great exports should be expected.

Given the test results, the Central Bank authorities must weigh the effectiveness of intervening directly in the currency market by buying massive amount of dollars to lower the nominal rate. A decision to do so would hinge on the projection of future remittances. If

15

remittances are expected to stay at their current level or grow, then the intervention may not be advisable.

An alternative instrument may be to set high withholding taxes on the domestic currency accounts of foreign residents and high taxes on interest income on dollar deposits of residents in order to give incentives to foreigners to transact in dollars and no artificial incentives to residents to move out of colones. Other measures could include special accounts and instruments to facilitate the conduct of most trade transactions in dollars (Rhee 1985). Still another would be to moderately tax each remittance transaction. The separation in the currency market could help to reduce much of the negative monetary impact of the dollar inflow.

Table 2.6. Regression Results on Test of Real Effective Rate Hypothesis

VARIABLES		COEFFICIENTS	T-STATS	SIGNIF. LEVEL
LOG VALUE OF FRUIT EXPORTS	Log of Ratio of Export unit value index to U.S. fruit price index (LRATIOF)	-1.377	-3.31	.0037
	Log of Real Effective Exchange Rate (LREX)	-12.23	-2.05	.0545
	Log of U.S. GDP per capita (LGDPUS)	8.03	4.54	.0002
	Dummy for Duty drawback payment: 1 for months with payments; 0 otherwise (D1)	2.19	3.23	.0043
	Constant	719.52	5.22	.0000

OBS: 24 months 1990-1991.
R-2: .65
F statistic: 8.97
F-stat. signif.: .0003
DW: 1.61

2.2.2 Commercial Policy: Tariff Structure

Commercial policy has three elements: tariffs on imported goods, export taxes, and quantitative restrictions such as licensing arrangements, quotas, and bans. El Salvador prior to 1989 had a very restrictive regime. The tariff structure ranged from 0 to 290% ad valorem and had 25 categories. Moreover, 170 items were prohibited from being imported. The traditional exports with the exception of cotton were all taxed. Beginning in the fourth quarter of 1989, the tariff and tax system was gradually liberalized in order to avoid sharp drops in revenue. The rationale behind the new scheme is to have a low dispersion in nominal rates of protection and to remove disincentives for primary commodity exporters.

Table 2.7. Chronology of Trade Reform

Date	Legal Instrument	Modification	Tariff Categories
Before September 1989	NA	Tariff Floor: 0% Tariff Ceiling: 290% Bans: 28 items; Prior to 1998, 170 items	25
September 1989	Biministerial Resolution No. 224 (Parts I and II) /1	Tariff Floor: 5% Tariff Ceiling 50%	7 (5,10,20,25,30,35,50%)
September 1989	NA	Export taxes on shrimp, and sugar eliminated. Effective coffee tax reduced from 20% per quintal to 12.5%.	
November 1989	Legislative Decree No. 383 (Part III) /2	Tariff Floor: 5% Tariff Ceiling: 50%	6 (5,10,20,30,40,50%)
April 1990	Biministerial Resolution No. 94 (Part I and II)	Tariff Floor: 5% Tariff Ceiling: 35%	6 (5,10,20,25,30,35%)
April 1990	Legislative Decree No. 486 (Part III)	Placed fuel and lubricants at 5% level	6 (5,10,20,25,30,35%)
1990	NA	List of 28 Prohibited Items Eliminated	
December 1990	Legislative Decree No.647 (Part III)	Tariff Floor: 5% Tariff Ceiling: 30%	5 (5,10,20,25,35%)
June 1991	Ministerial Resolution No. 155 (Part I and II)	Tariff Floor: 5% Tariff Ceiling: 30%	5 (5,10,20,25,30%)
January 1992	Ministerial Resolution No. 421 (Part I and II)	Tariff Floor: 5% Tariff Ceiling: 20%	4 (5,10,20,30%) /3
December 1992	NA	Coffee tax eliminated.	

Sources: MIPLAN, USDA Agricultural Situation 1993 Annual Report, IMF 1991 El Salvador Recent Economic Developments.

Notes: /1 Changes to Parts I and II of the Tariff Code are subject to the Central American Council on Tariffs, an administrative committee under the Central American Common Market and can be modified by agreements between the Trade ministers of the region.

/2 Changes to Part III of the Tariff Code, (strategic goods) require legislative approval.

/3 The 30% category applies only to leather, textiles, and clothing.

The tariff rates in the agricultural area are mostly at the upper end of the spectrum (20%) while rates on capital and intermediate goods are 5 and 10 percent (Table 2.10). The most controversial trade issue in the agricultural area is the maintenance of price bands for basic grains, which were adopted in 1990 under State Department/USAID Economic Support Fund conditionality and promoted as a means to stabilize producer prices by using an international reference price linkage. This policy has been declared trade restrictive by U.S. Department of Agriculture (USDA) and U.S.Trade Representative (USTR) because it functions as a variable levy. Its phaseout will be a condition for the approval of next year's PL-480 program. How effective this policy has been will be discussed in the next chapter.

Table 2.8. Frequency Distribution of Tariff Rates (Percent of Commodities Affected by Tariff Rate Class)

Tariff Rate	Whole Economy			Agriculture			Mining			Manufacturing		
	1991	1992	Aug. 1993	1991	1992	Aug. 1993	1991	1992	Aug. 1993	1991	1992	Aug. 1993
5.0	48.6	48.4	53.4	44.3	43.9	34.8	68.8	71.9	77.2	48.5	48.2	54.3
10.0	8.3	8.9	11.6	17.9	18.7	10.9	21.9	18.8	19.8	7.5	8.1	11.5
15.0	0.0	0.0	7.2	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0	5.4
20.0	9.8	36.0	15.5	8.5	35.5	21.6	9.4	9.4	0.0	9.8	36.6	15.4
25.0	13.5	0.3	0.3	11.3	0.0	0.0	0.0	0.0	0.0	13.9	0.4	0.3
30.0	15.4	6.3	12.1	17.9	1.9	0.0	0.0	0.0	0.0	15.5	6.7	13.2
35.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0

Source: Ministry of Planning, El Salvador

Table 2.9. Average Nominal Protection Rates

Average Nominal Protection Rates	1991	1992	August 1993
Whole Economy	14.8	12.5	11.7
Agriculture	13.9	11.7	12.1
Mining	7.5	7.3	6.3
Manufacturing	15.0	12.6	11.8
Consumer Goods	20	16.2	19.1
Intermediate Goods	11.6	10.3	7.8
Capital Goods	10.8	9.8	6.4

Source: Ministry of Planning, El Salvador

More important has been the lowering of nominal rates of protection and a tightening of the dispersion in rates. After August 1993 when Structural Adjustment Loan III is expected to be negotiated and signed, the majority (53.4%) of import products in the whole economy will be in the lowest tariff rung. Agriculture will be more protected than before in comparison with the other two broad sectors, mining and manufacturing; 54.3 percent of agricultural product items will be subject to 15- and 20-percent tariffs. Mining, a relatively unimportant sector, will be the most open, with 77.3 percent of items subject to the lowest tariff rate. Manufacturing, a sector heavily protected since the 1960s, will face more external competition as the percent of products covered by upper-end tariffs sharply falls. Whereas the percentage of items in tariff brackets of 25 and above was 34.3 percent in 1991, they will be 13.5 percent. The reversing of the cascading effect common in regimes pursuing import substitution industrialization will give more incentives to produce for the external market, to rapidly improve technical efficiencies, and to aspire to international standards of quality.

	roup		New (%)
Grains:	Wheat	20	Price band
	Yellow corn	20	Price band
	White corn	20	10
	Sorghum	20	Price band
	Polished Rice	20	Price band
Meats:	Red meat	25	20
	Fish	25	20
	Poultry	25	20
	Offal	25	20
	Meat/seafood preparations	30	20
Diary:	Whole milk	5	10
	Low fat milk	5	10
	Other milk products	25	20
Beverages:	Green coffee	30	20
	Prepared coffee products	30	20
	Tea	30	20
	Mate	30	20
Fats and Oils:	Lard	25	20
	Other animal fats	25	20
	Margarine	25	20
	Vegetable oils	25	20
Flours and bakery goods:	Rye, oat, wheat flours	25	20
	Breads	25	20
	Pastries	25	20
	Biscuits	25	20
Fruits and Vegetables:	Potatoes for planting	25	20
	Tomatoes	25	20
	Mushrooms	25	20
	Edible fruits	30	20
	Legumes	25	20
	Cassava	25	20
Sweeteners and Others:	Cotton lint	30	20
	Tobacco	30	20
	Sugar beets	25	20
	Pure sucrose	0	5
	Chocolate	30	20
	Cut flowers	30	20

Source: USDA, Foreign Agricultural Service, El Salvador Tariff Reduction Report, January 20, 1992.

19

As a result of the commercial policy reforms, the nominal rates of protection for various sectors is virtually uniform. In 1992, the manufacturing sector enjoyed slightly more protection than agriculture (12.6% vs. 11.7%), but in 1993 the positions reversed with agriculture slightly favored (12.1% to 11.8%).

The impact on government revenue was expected to be negative and pronounced in 1989 and 1990, but the simplification of the system and the elimination of the many exemptions that existed, along with a surge in import demand, increased tariff revenues spectacularly. As seen in Table 2.11, tariff revenue rose 48 percent from C312 million in 1989 to C464 million in 1990. By 1992 the level was C819 million, the highest ever recorded. Total trade revenue, however, which sums export taxes and tariff revenue, has not eclipsed the 1986 mark of C1.1 billion. To improve revenue generation, the Government of El Salvador has focused on a value-added consumption tax (introduced in September of 1992), a simplified income tax system, and more aggressive collection. To date the Government has been rather successful, generating a yearly revenue average of C4 billion in the 1990-92 period compared with the C2.4 billion yearly average in the 1985-89 period, when tax evasion was rampant and the tax collection system had collapsed in certain parts of the country.

Table 2.11. Tariff and Export Tax Revenue (thousand colones)

Item/Years	1986	1987	1988	1989	1990	1991	1992
Export Tax Revenue	964289	442879	377796	132763	255376	221772	28000
Coffee	955091	431704	368289	123980	253304	221345	28000
Sugar	3262	6002	4183	3488	1699	0	0
Shrimp	5936	5173	5323	5295	373	427	0
Tariff Revenue	204083	258575	214330	312759	464764	641849	819000
Total Trade Revenue	1168372	701454	592126	445522	720140	863621	847000
Annual Percent Change							
Export Tax Revenue	-	-54.07	-14.70	-64.86	92.35	-13.16	-87.37
Coffee	-	-54.80	-14.69	-66.34	104.31	-12.62	-87.35
Sugar	-	84.00	-30.31	-16.61	-51.29	-100.00	0.00
Shrimp	-	-12.85	2.90	-0.53	-92.96	14.48	-100.00
Tariff Revenue	-	26.70	-17.11	45.92	48.60	38.10	27.60
Total Trade Revenue	-	-39.96	-15.59	-24.76	61.64	19.92	-1.92

Source: Central Reserve Bank of El Salvador

2.2.3 Commercial Policy: Export Controls and Nontariff Barriers

The Government of El Salvador has dramatically reduced the number of licenses and permits needed to import and export products. Most of the existing restrictions were justified either by bilateral agreements with the United States (sugar quota, and PL-480 products), antidumping measures (fibers), or protection of cultural heritage, endangered species.

The motive for the sugar policy is that sugar is subject to an import quota in the United States and strict statistical controls are needed to determine when the quota is filled. In the case of maquila (assembly industry), again strict statistical controls are needed to comply with rules of origin and local value content as imposed by U.S. law. Coffee similarly was subject to export quotas under the International Coffee Agreement, which expired. Now the interest is more for statistical control.

Fuels, heavy equipment, veterinary medicines, and cement are regulated for national security and economic reasons. These items tend to be scarce in internal markets. For fish products, the justification is to facilitate statistical control and prevent overfishing of commercially exploited species.

A few products are prohibited from export. Under the PL-480 Agreement signed with the U.S. government, wheat, tallow, vegetable protein meals, oilseeds, margarine, vegetable oils, and wheat gluten cannot be exported, the same products that can be imported through the program from the United States on preferential terms. Understandably, the U.S. government does not want them re-exported. El Salvador does not produce any of these produces, except for very small amounts of cottonseed oil.

Other items prohibited from export are historical antiquities, wild animals, and flowers. A black markets exists for pre-Columbian artifacts, but GOES has not been able to control the trade.

On the import side, seeds, basic grains (white corn, beans, sorghum, rice) and their derived flours require permits and quality inspections largely because of unequal pricing policies in neighboring Central American countries. For the import of seeds, the granting of permits is perfunctory and greater attention is paid to quality standards. Because the country is self-sufficient in basic grain production, import permits are not an issue. Permits are almost always denied for fibers, however, because the Government believes that Bangladesh and Pakistan are dumping these products on the Salvadoran market, thus destroying the local hemp industry located in the eastern region, a region hard hit by war and with limited diversification potential because of poor soils and scarce water.

For other agricultural products, imports are subject only to phytosanitary inspections. One brewing issue is the import of U.S. chicken parts. Salvadoran authorities have been using a double standard, admitting chicken parts from other countries but applying very rigorous

71

standards to U.S. imports in an attempt to protect its local industry and in retaliation for lack of access for its breast parts in the U.S. market.

2.2.4 Monetary and Credit Policies

Since 1989-90, the Central Bank has tried to pursue a tight credit policy to control inflation and maintain exchange rate stability. However, large capital inflows and a growing fiscal deficit have augmented the amount of international reserves held and forced domestic financing of the public deficit, thereby stimulating the expansion of the money supply and creating excess liquidity in the banking system. For example, in 1992 the Central Bank had hoped to limit credit expansion to the private sector to 16.3 percent and credit expansion to the nonfinancial public sector to 4.6 percent. The actual figures were 39 percent and 14 percent, respectively (FUSDADES Coyuntura No. 4, 1992). Net coefficients of liquidity for commercial banks have been steadily rising from a low of 6.53 percent in 1989.[1] The coefficient was 16.86 percent in 1990, 24.78 percent in 1991, and 25.15 percent in 1992, above the approximate legal reserve of 20 percent in the last two years (Central Reserve Bank Review, March 1993; Wenner and Umaña 1993).

The Central Bank has tried to sterilize this excess liquidity but its two preferred instruments—increasing legal reserve requirements and obligatory monetary stabilization bonds (BEF) with commercial banks—have high attendant social costs. Increasing legal reserves reduces the profitability of member banks because the reserves are unrenumerated and less lending is possible. The need to place increasingly more 180-day BEF bonds puts upward pressure on the interest rate offered, implying operational losses for the Central Bank. If the CEM offers below-market interest rates, bank profitability is once again reduced and banks complain bitterly. The larger amount of funds invested in BEFs reduces the loanable capital of commercial banks, forcing them to raise their margins of intermediation. Passive rates of interest (savings and time deposits) are not likely to be lowered because of the increased competition in the liberalized banking system today. Banks desire longer term deposits because they permit a greater degree of liquidity management and reduce short-term risk. Therefore, passive rates tend to be forced upward. To make a profit, active or lending interest rates rise, threatening to choke off the current economic expansion.

The challenge for Central Bank authorities is twofold. First, they must convince the fiscal authorities, namely the Finance Ministry, to issue its own short-term bonds as a stopgap measure and to better control spending. Loose fiscal policy is complicating monetary management and impairing the Central Bank's medium- to long-term ability to conduct aggressive monetary policy due to the high level of operational losses. In the period 1990-92, Central Bank losses averaged 0.8 percent of GDP per year. Second, the Central Bank must rely more on open market operations (OMOs) and the voluntary placement of short-term bonds. The

[1] Net liquidity coefficient is defined as the sum of legal reserves and cash in vault minus Central Bank loans divided by total deposits. When the figure is above the legal reserve rate, it means that the banking system has surplus funds.

reliance on obligatory bonds is not consistent with liberal economic thinking. Central Bank authorities have stated that indirect instruments such as OMOs are not as potent as obligatory placements for the voluntary bonds (CEMs) because they are held for too short a period to effectively reduce liquidity in the system. In spring 1992, the Central Bank started offering CEMs of 30, 60, 90, 150, 180, and 210 days at competitive rates, yet 83 percent of sales have been for the 90-day instrument (FUSADES Coyuntura No. 4, 1992). Commercial banks shun the 180-day and 210-day instruments, which are ideal from the Central Bank's perspective. Strengthening of the embryonic capital market through passage of prudent regulations, establishment of an oversight body, and encouragement of the creation of innovative financial instruments such as swaps and rediscounting of bonds is needed.

The immediate impact of monetary policy is higher interest rates, which, given the generally lower profitability of agricultural activities and greater susceptibility to external shocks, makes qualifying for a loan more difficult (Wenner and Umaña 1993). Although the total amount approved for the sector increased by 10.9 percent in 1992 to C442 million, the majority of the credit is concentrated in one crop, coffee. Credit di-stribution by crop in descending order are: coffee (75%), sugar (5.7%), cotton (5.5%), fruits and vegetables (3.5%), poultry (2.3%), rice (2.0%), cattle raising (1.9%), and corn (1.7%)(Central Bank Revista, March 1993). Access to credit is limited to a small percentage of the economically active rural population and the principal bank that attends small- and medium-size farmers has serious delinquency problems and is seeing its eligible client pool decline further.

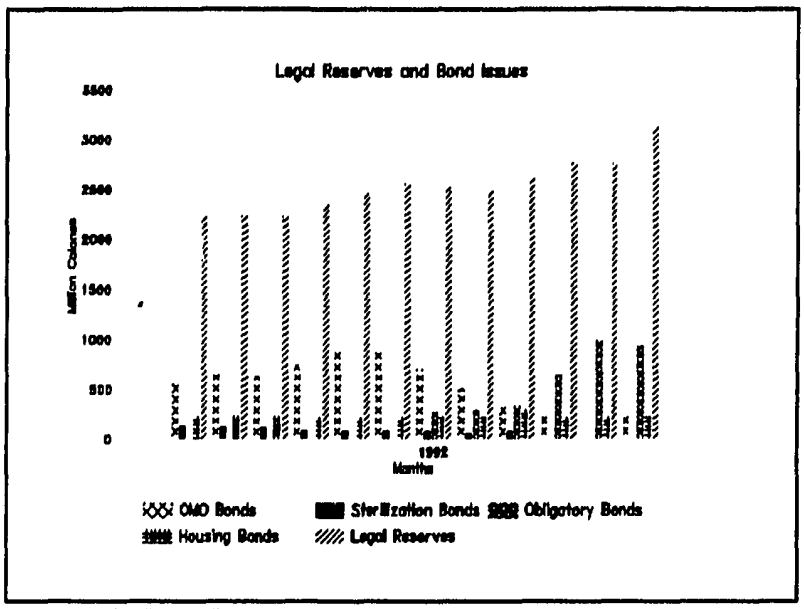


Figure 2.5: Legal Reserves and Bond Issues

As seen in Figures 2.5 and 2.6, there is a direct relationship between monetary restrictiveness, as measured by increased reserve holding and higher bonds outstanding, and an upward trend in the short-term lending interest rate. Note that the margin of intermediation has moved up in the last quarter of 1992, as theory would suggest.

2.2.5 Fiscal Policy and Public Investment

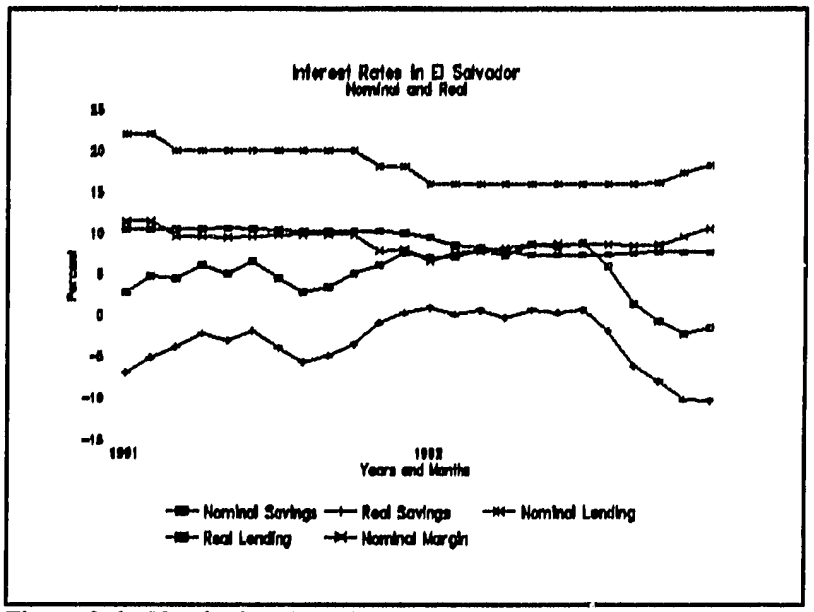


Figure 2.6: Nominal and Real Interest Rates

Since the beginning of the Cristiani administration, the GOES has sought to change the role of the public sector, to transform it into a more efficient and dynamic entity in a market economy. Considering that the success of any program of reform to a great extent depends on significant improvement in public sector finances, the Government has taken measures aimed, on the one hand, at raising revenues and, on the other, at containing expenditures within limits consistent with its modified and more limited role.

In the area of revenue policies, fiscal reforms are being undertaken to establish a broader tax base, which would permit a significant increase in tax collections. In addition, a series of specific taxes with low yields and high administrative costs were eliminated. To expand the tax base while also reducing tax-induced distortions, a large part of the previously existing exemptions were abolished. In the same fashion, the prices of services provided by public sector enterprises were increased. In the area of expenditure policies, mechanisms have been introduced to promote a more efficient utilization of public resources.

As a result of these changes, tax revenue increased in 1992 to about 9.5 percent of GDP, from 8 percent in 1989. These results were somewhat below expectations, and indications are that tax administration is at fault.[2] The low increase in tax revenues reflects three important structural weaknesses of the tax system:

- A poor system of tax administration that facilitates evasion
- A heavy reliance on indirect taxes
- A very narrow tax base

In 1992, direct taxes, indirect taxes, and foreign aid represented 21 percent, 55 percent, and 14 percent, respectively, of Government revenue. The Government, with USAID support,

[2] El Salvador's rate of tax collection is one of the lowest in Latin America and the tax system still relies on complex administrative procedures, and enforcement is weak.

is implementing a program to strengthen tax administration, controls, and enforcement. The project covers four areas:

- Improvement on control and audit procedures to more promptly identify tax problems in large accounts and to eliminate auditing of smaller but more costly accounts.
- Design of a withholding procedure for banks and businesses that receive withholding taxes. It includes a timing and a penalty scheme to oblige them to remit tax collections to the Government.
- Strengthening the application of tax laws through higher penalties for evasion and charging interest on tax arrears. Improve coordination between various tax agencies to facilitate cross-referencing of tax returns.
- Training of personnel and creation of a special task force within the office of the Ministry of Finance that would be responsible for monitoring the tax enforcement effort.

Despite the introduction of the value-added tax, which replaced the stamp-tax, the expected yield in tax revenue for 1992 can be considered poor at best. With the continued stagnation in central government revenue, total expenditures of the nonfinancial public sector fell significantly, from 11.5 percent of GDP in 1988 to 9.8 percent in 1992, and capital expenditure, which had averaged 11 percent of GDP during the early 1980s, fell to 3.6 percent in 1992. This investment decline represents a significant sacrifice of future economic and social growth. Conservative revenue projections for 1993 are about 12 percent of GDP. It is anticipated, however, that once the systems described above are in full operation, an increase in the tax coefficient of about 0.5 percent of GDP on an annual basis could be anticipated (Table 2.2).

Fiscal Policy and Agriculture. Fiscal policy affects agriculture in four ways, three direct ways and one indirect. One direct way is through subsidies. Under the new policy regime, all but sugar price subsidies have been eliminated.

A second way is directly through public investment in infrastructure: port facilities that allow acces to export, collection centers and storage depots that increase access to domestic markets, rural roads that reduce the cost of transport to market, provision of new crop varieties, education, research, and recurrent expenditures on extension services.

The third direct way is through taxation. For example, selective commodity taxes distort incentives in the same way as unequal tariffs; they give rise to economic protection rates that differ from product to product. A tax on income or on primary factors is not distortive of resource allocation decisions among products. Therefore, from a viewpoint of economic efficiency, such a tax is preferable to commodity taxes. For El Salvador, the agricultural

taxation system needs to move gradually away from commodity taxes and toward taxes on factors.[3]

The fourth way is indirectly through the impact of the public deficit on macrovariables such as the rate of money expansion, inflation, and the interest rate. Such fiscal actions influence prices through shifting the marketed supply function. Their relation to prices is indirect and takes place over the long run. In recent times, the large fiscal deficits have contributed to inflation and high interest rates. Despite a significant increase in revenues in the 1990-92 period, and especially in the last year, the public deficit has continued to worsen. In 1990, the deficit as a percent of GDP was 2.7 percent; in 1991, it was 4.4 percent, and in 1992, it continued upward to 4.8 percent, well above the targeted 2.5 percent. The unexpected worsening in 1992 can be attributed to slowness in establishing certain elements of the new tax administration system such as securing passage of stiffer penalties for tax evasion and the creation of a new office to monitor large taxpayers. But the main culprit was unexpected expenditures due to the donor shortfalls in financing the National Reconstruction Plan (NRP) and the deterioration in the hydrogeneration capacity of the power utility (CEL), which precipitated the importation of more fuel than anticipated for oil-based power plants.

In accordance with the Peace Accords signed in 1992, it is expected that about $1 billion will be spent between 1992 and 1997 to cover the indemnization payment for ex-military personnel, establish a new police force, strenghten democratic institutions, transfer land to ex-guerillas, and replace much of the damaged physical infrastructure in the former conflict zones. International donors were expected to pay 80 percent of the budget, but have been slow to honor their pledges, some because they oppose indemnifying ex-military personnel. In order to maintain good faith, the Salvadoran Government will most likely have to replace the shortfalls through domestic savings.

Fiscal policy always has the dual aspects of expenditure policy and revenue policy. Thus, in El Salvador, where a skewed distribution of landholdings is a concern, but where a decided turn toward market-oriented policies is occurring, a land tax can represent a device to promote land distribution via market channels rather than via forced expropriation. On the expenditure side of fiscal accounts, one concern is to place subsidies on a more justifiable footing.[4]

An important constraint on the agricultural sector has been the discriminatory treatment it received through fiscal budget allocation. The continuous decline in real public expenditures devoted to agriculture, only 2.8 percent in 1992 (and only about 5.7 percent per annum for the last 23 years), threatens to constrain future growth (Appendix A.4b). These trends suggest that

---

[3] As well as being efficiency-neutral sources of revenue, land taxes may also promote intensification of land use. This has been found recently in actual experience in Japan and other countries.

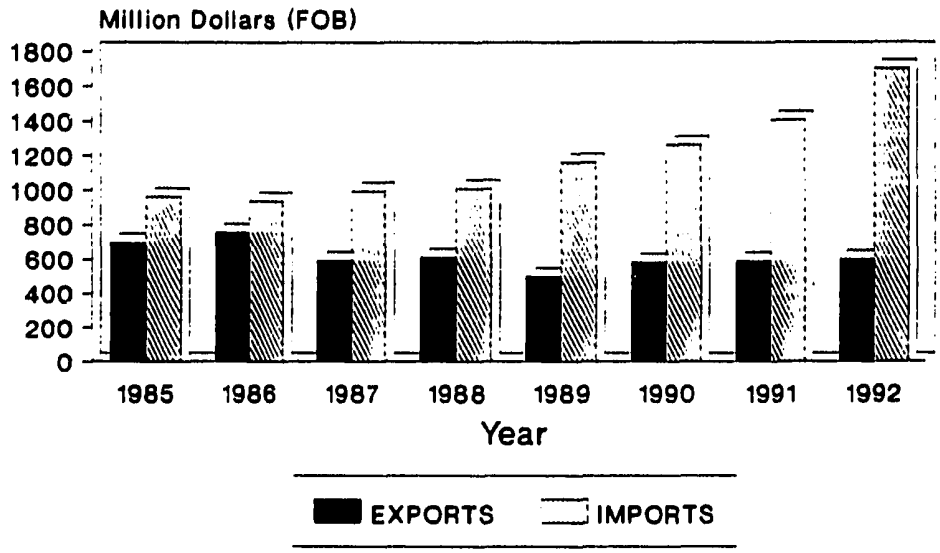
[4] Subsidies are warranted in the cases of: (a) programs targeted on more vulnerable groups; (b) emergencies; and (c) programs designed to enhance a transition to a more efficient policy regime.

in the short to medium term, GOES must be prepared to spend more in agriculture. The modernization of agriculture looks toward the future, but the changes in attitude and actions in favor of sector development must occur now. In the area of agricultural management, El Salvador needs administrative efficiency and clear policy goals and programs.

In the coming years, the Salvadoran Government plans to reduce the deficit to about 2 percent of GDP by eliminating and postponing capital projects unrelated to NRP, reducing the civil service by 4,000, and rephasing a planned civil service wage increase. On the revenue side, improved tax and customs administration will be aggressively pursued. The Internal Revenue Service is being reorganized and its capacity to conduct audits will be improved. With the aid of the "Delito Fiscal" Law, which passed the Legislative Assembly on March 25, 1993, established severe payments for tax evasion, better tax collections are expected.

Investment in Agriculture.[5] In 1992, overall capital expenditure increased by 10.3 percent over 1991. This is a positive trend, but the share of capital expenditure of total public expenditure continues at a very low level. As shown in Figure 2.5, total investments in agriculture, as measured by the BCR and deflated by the GDP deflator, declined in 1985-89 at a rate of -20.4 percent per year. Since then, and for the period 1989-92, it rebounded to a rate of 10.6 percent per year. The same trend is observed in a comparison of agricultural investment to GDP (Figure 2.7). The ratio of real agricultural investment to real GDP increased from 0.21 percent in 1989 to 0.27 percent in 1992, and is expected to reach 0.31 percent in 1993.

Figure 2.7: Merchandise Balance of trade, El Salvador, 1985-92



[5] The Banco Central de Reserva defines investment in agriculture as equipment and machinery used in agriculture.

21

2.2.6 Wages and Labor Productivity

With the end of the conflict the rate of increase in rural employment has increased significantly, going up from 538,000 to 834,000 (Table 2.13). However, while agricultural nominal monthly wages have increased an average of 9.4 percent in nominal terms, there was an erosion in real terms thru 1991 (Table 2.12). Currently, the typical day wage in rural areas for a male older than 16 years is C13 in cash and about C3-5 in food rations. For harvesters, the pay is a little higher, ranging from C14.40 to C19.50. Nonetheless, the most troubling development is the decrease in productivity. As shown in Table 2.13, the rural work force is increasing but the increase in volume of production is not proportionate. One possible explanation is that many are involved in low-yield subsistence grain cultivation. Few modern inputs and improved cultivation practices are used, with most of the gain in volume due to expanded area. The lack of access to credit and technology as well as secure marketing outlets may contribute to this phenomenon. The large amount of remittances and access to concessional funds from nongovernmental organizations active in rural areas may be other reasons.

2.3 Conclusions and Recommendations

Agricultural trade was found to most adversely affected by low coffee prices, an overvalued exchange rate, and tight credit policies. The collapse of the coffee market is beyond the control of Salvadoran policymakers but realigning the exchange rate and curbing the fiscal deficit can help agricultural producers raise their incomes and lower lending rates of interest.

Tariffs have been uniformly reduced and the nominal sectoral rates of protection are fairly close, indicating a neutrality. Export taxes and nontariff barriers have also been reduced, eliminating gross distortions in the economy. Exporters have incentives to produce more, importer substituters face the challenge of external competition, and rents are no longer transferred to a small group of individuals at the expense of consumers and the government treasury.

The principal macroeconomic weakness is the inability to reduce the public deficit. The domestic financing of the deficit crowds out the private sector in the credit market and complicates the conduct of monetary policy. Because of an expansive fiscal policy, monetary policy has been even tighter in the face of excess liquidity stemming from massive capital inflows and net accumulation of reserves in order to control inflation. Since the inflows are largely remittances, and thus uncontrollable, policymakers need to redouble efforts to reduce the public deficit. Because of the high expenditure needs related to the Peace Accords and shortfalls in donor assistance, higher tax revenue generation is needed.

What could alleviate the credit situation in the medium term is the development of a more active capital market. If businesses had an alternative source of financing (equity), it would relieve pressure on the Central Bank to relax its anti-inflationary policies.

Table 2.12. Wages by Sector					
	1988	1989	1990	1991	1992
Avg. Nominal Monthly Wages					
Agriculture	889.50	961.20	1035.40	1155.60	1300.70
Manufacturing	972.10	1101.60	1229.40	1333.90	1714.70
Construction	673.10	824.80	960.90	1049.70	1092.80
Commerce	924.50	1023.80	1223.90	1230.60	1372.20
Transport	995.00	1164.20	1323.20	1426.70	1703.00
Government	1108.50	1275.20	1387.00	1432.80	1541.70
Agriculture	-	8.06	7.72	11.61	12.56
Manufacturing	-	13.32	11.60	8.50	28.55
Construction	-	22.54	16.50	9.24	4.11
Commerce	-	10.74	19.54	0.55	11.51
Transport	-	17.01	13.66	7.82	19.37
Government	-	15.04	8.77	3.30	7.60
Avg. Real Monthly Wages (1980 colones)					
Agriculture	227.50	209.00	181.60	177.20	179.30
Manufacturing	248.60	239.60	215.60	204.50	236.40
Construction	172.10	179.40	168.50	160.90	150.70
Commerce	236.40	222.60	214.60	188.70	189.20
Transport	305.70	295.80	257.50	233.80	222.00
Government	283.50	277.30	243.20	219.60	212.50
			Percent Change		
Agriculture	-	-8.13	-13.11	-2.42	1.19
Manufacturing	-	-3.62	-10.02	-5.15	15.60
Construction	-	4.24	-6.08	-4.51	-6.34
Commerce	-	-5.84	-3.59	-12.07	0.26
Transport	-	-3.24	-12.95	-9.20	-5.05
Government	-	-2.19	-12.30	-9.70	-3.23

Sources: Central Bank of El Salvador, Social Security Institute of El Salvador, and Ministry of Finance.

29

In short, the Government of El Salvador, despite protestations to the contrary, is not providing an auspicious business and export climate. The exchange rate is not realistic; exporters, especially medium and small ones in nontraditional areas, have credit access problems; existing incentive programs benefit only a few firms; and institutional support and regulatory transparency need to be improved.

Table 2.13. Salvadoran Rural Employment and Productivity Indicators

Items	Units	1988	1989	1990	1991	1992	Average
Rural Workforce	Thousands	535.90	538.60	578.40	732.10	834.40	
Percent Change	Percent	-	0.50	7.39	26.57	13.97	12.11
Employment Index (1988=100)	Index	100.00	100.50	107.93	136.61	155.70	
Agricultural Production Volume Index (1988=100)		100.00	99.00	110.36	109.60	117.75	
Percent Change	Percent	-	-1.00	11.48	-0.69	7.44	4.31
Productivity Index (1988=100)	Index	100.00	98.51	102.25	80.23	75.63	

Sources: Central Reserve Bank March 1993 Review; IMF Statistical Annex, April 21, 1993.

30

3. AGRICULTURAL GROWTH TRENDS AND POLICY DEVELOPMENT ISSUES

3.1 Introduction

Unable to influence world demand or the prices of its primary export products, and constrained by a rigid structure of imports required to run the economy, El Salvador is continuously exposed to external fluctuations. In addition, it is equally dependent on official aid and remittances to sustain the country's purchasing power.

The balance-of-trade problem has at least four dimensions:

- Stagnant exports make it more difficult in sustaining long-term economic policy reforms.
- Slow growth in the quantities of goods exported is evidence of a structural weakness in production and of a need to increase investment in technology, infrastructure, and human capital.
- The significant decline in the terms of trade (export prices versus import prices) calls for export diversification and better incentives to enhance the role of the private sector.
- Existing international exchange rate policies have meant that El Salvador has become a relatively high-cost economy in dollar terms, which has reduced the sector's ability to compete against the products of other countries.

In agriculture, the main cause of the decline in both production and income has been the collapse of cotton and coffee export earnings due to low international prices.

3.2 Background

As shown previously, agriculture today constitutes some 23-25 percent of the nation's GDP, a declining share compared with the 26-27.5 percent in the 1980s. Agricultural GDP has declined on average -0.6 percent per year since 1980, while population increased at a rate of about 2.3 percent annually.

Agriculture is a net earner of foreign exchange for the Salvadoran economy. Agricultural exports accounted for 75-85 percent of total exports in terms of value from 1975 to 1985, but declined to 70 percent in 1992. Unfortunately, the civil strife coupled with sharply declining prices have had an adverse effect on El Salvador's cotton production and exports, which fell to near zero in 1992. Additionally, the share of coffee exports fell from 66.7 percent of total exports in 1985 to about 25.3 percent in 1992.

The share of grain imports in total agricultural imports (in terms of value) increased from 15-17 percent in 1980 to about 20 percent in 1992. Wheat accounts for the largest component of this total, and imports of this commodity have increased rapidly; an average of 28 percent per year from 1989 to 1992. In sum, imports of wheat, corn, and rice required a total of US$50.4 million dollars in foreign exchange in 1992.

3.2.1 Stabilizing Trends in Value Added and Exports

Since 1970, agriculture has declined as a portion of El Salvador's GDP. These estimates are probably biased downward because, as noted elsewhere in this report, El Salvador's price policies appear to have discriminated against agriculture, which lowers the price of agricultural products relative to prices in other sectors of the economy. Between 1985 and 1990, growth in the agricultural sector averaged less than 1 percent per year, far below the estimated population growth rate of 2.3 percent. The combination of reduced producer incentives, unsound macroeconomic policies, increased violence in the countryside, and the inability of agrarian reform cooperatives to function as effectively as planned contributed to years of unimpressive, zero, and even negative rates of growth.

If the preliminary estimates reported for 1992 are correct, however, the agricultural sector would appear to have recovered, with output increasing by a healthy 6.7 percent. The projections for 1993 also indicate that the sector will grow at a rate of approximately 7 percent.

Data on the value of traditional agricultural exports are reported in Appendix B.1 for the years 1980-92. Coffee exports comprised the major component of both total and traditional exports through 1989. From 1990 to date, the value of nontraditional exports comprised the major component, while the export share of coffee has declined to a meager 25.3 percent. From 1985 to 1990, the value of total exports decreased 6.2 percent per year, while the value of nontraditional exports increased about 11.2 percent per year. On the other hand, the value and volume of coffee exports declined about 9 percent and 10 percent per year, respectively (Figure 3.1).

Since 1980, the total value of agricultural exports has fluctuated from a high of US$1.1 billion in 1980 to a low of US$498 million in 1988. These more recent fluctuations reflect the effects of both declining world market prices and volume for coffee and the virtual disappearance of cotton cultivation in El Salvador. Nevertheless, a number of indicators suggest that a slow but steady sustainable economic recovery is possible. Table 3.2 presents the main steps taken to strengthen the performance of the agricultural sector and some of the positive indicators that reflect this change.

3.2.2 Agricultural Growth Trends

The main characteristics of the trend in agricultural production have been a rapid rate of increase until the end of the 1970s and then a marked decline until the end of the 1980s. At the beginning of the 1990s, agriculture value added increased from 786 million colones in 1990 to

32

837 million colones in 1992, a positive growth rate of 3.2 percent per year (Appendix B.2). The recovery is being led by basic grains (6.1% growth per year). Of the major export crops, sugarcane production has increased at a healthy rate of 17.8 percent per year, and coffee at an anemic rate of 0.4 percent per year.

This recovery in agricultural output can be associated with the end of the civil conflict, a significantly better macroeconomic policy environment since June 1989, liberalization of the agricultural sector, and producers' expectations for further reforms.

As shown in Figure 3.2, in 1980 the most important contributors to GDP in agriculture were coffee (34.8%), livestock (26.1%), and grains (15.3%). Sugarcane and cotton contributed 2.6 percent and 7.9 percent, respectively. By 1992, the structure had changed significantly: coffee (27.5%, a decline of 7.3 percentage points); livestock (32.5%, an increase of 6.4 percentage points, mainly in poultry production); and grains (20.1%, an increase of 4.8 percentage points). Sugar contributed 4.7 percent (an increase of 2.1 percentage points); and cotton a meager 0.5 percent (a decline of 7.4 percentage points).

By 1992, four crops (coffee, basic grains, poultry, and livestock) accounted for 80.2 percent of GDP in agriculture. In short, food crops had become proportionately much more important than export crops. The competition between food and export crops for limited land and public resources will emerge as an important strategic issue in coming years.

3.2.3 Overview of Price Tendencies

Real producer prices for coffee, sugar, corn, rice, and beans, defined as nominal producer prices divided by the consumer price index (CPI, base (1978) = 100), have shown two principal trends in the last 23 years: first, from 1970 until 1978, they tended to improve, and then from 1979 to 1992, they deteriorated (Appendix B.10a to B.12a). For sugar and basic grains, however, since 1990, the decline has stopped, but it is not clear that this trend was sustained during the first six months of 1993. As Appendix B.10a to B.12a demonstrate, real producer prices in 1992 were only 48 percent of the 1978 level. Coffee prices were the most unstable. By 1992, real coffee prices had dropped to about 12 percent of their 1978 level.[1]

Basic grain prices have been much more stable in their real price performance. These prices showed a consistent downward trend throughout the entire 1970-92 period (Appendix B.12b to B.14). There are at least three major economic implications of these trends:

- Crop production has been lower, which means that producers' real incomes are much lower.

[1] International price movements coupled with coffee taxes were important factors in these trends. During the years of higher prices, not all of the increase was passed on to the producers.

- Agricultural investment has dropped sharply, which will weaken the sector's potential for both recovery and sustainability.

- Agriculture's net foreign exchange earnings have declined significantly, which weakens the sector's capacity to import capital development inputs.

The effects of prices are therefore truly pervasive. A key question for policymakers is the extent to which price trends may have been determined by domestic policy (macroeconomic and sectoral), by imports (basic grains), or by the exogenous effects of international prices. To explore these policy issues comprehensively, the team recommends a pricing policy study that takes into consideration macroeconomic policy inputs (exchange rate, taxes, etc.) and price transmission impacts.

Farm-Retail Price Relationship. Farm-retail spread is the margin between retail price and the farm value of a product. In recent years, these price spreads for corn, rice, and beans have accounted for C40, C55, and C46 or less, respectively, of every C100 consumers spend for these commodities in retail stores and markets. For sorghum, it is less than C27 (Figure 3.10- 3.13). In contrast, corn producers received C58, rice producers C46, bean producers C72, and sorghum producers C74 out of every C100 consumers spent on these commodities between 1980 and 1985. Between 1985 and 1992, however, the farmers' share for corn increased to C61, remained constant for rice, increased for beans to C78, and decreased for sorghum to C68. However, during the civil war (1986–1989), which increased the risks and uncertainties, the farmers' share for all basic grains decreased. [2]

Cost components of the farm-retail spread have climbed steadily since 1986. Gains in basic grain productivity failed to match increases in transportation, labor, and other costs. Between 1989 and 1992 transportation costs accounted for more than half the farm-retail spread. Some of the larger costs in the farm-retail spread are relatively inflexible. Freight rates of truckers follow the price of diesel fuel and the exchange rate. These conditions lead to less flexibility from year to year in farm-retail spreads than in prices paid to farmers or retail prices charged to consumers for basic grains.

In summary, the present lack of reliable market information, the lack of on-farm storage capacity, and poor roads hamper farmers, especially, in optimizing production decisions and earning a better return. Particular attention is needed on rural road improvement and maintenance.

[2] During the last two years, and until the time of this writing, retail prices for beans increased more rapidly than farm prices.

3.2.4 Overview of Agricultural and Food Policies

In El Salvador, the basic objectives of agricultural policy appear to be increased food output, reduced production costs, and higher net return to land and management, which may conflict or compete with other government objectives, including keeping inflation low, development of the industrial sector, reduction of the budget deficit, maintenance of high employment, and reduction of adverse balance of payments. Selecting a course of action in terms of particular policy instruments (exchange rate policy, price policy, etc.) requires trade-offs among these various objectives.[3]

The inauguration of the Cristiani administration in June 1989 brought the promise of significant reform for El Salvador, and the degree of state intervention in the economy has been significantly reduced. GOES has implemented several policy reforms in the agricultural, marketing, international trade, rural finance, land tenure, and institutional areas (Table 3.1).

The massive direct state intervention in the market economy of El Salvador in the late 1970s and early 1980s illustrates the costs to government of efforts to manipulate a great number of policy instruments to achieve conflicting policy objectives. Agricultural sector policy during this period was characterized by the agrarian reform, which converted the land tenure system to one of agrarian cooperative enterprises.

State-owned agricultural institutions such as the Instituto Nacional del Azúcar (INAZUCAR), Instituto Nacional del Café (INCAFE), and Instituto Regulador de Abastecimiento (IRA) were created to control the marketing and distribution of basic agricultural inputs and outputs. Special programs were established for direct state financing of agrarian reform enterprises, and ever greater subsidies were granted to the Banco de Fomento Agropecuario (BFA). These initiatives contributed to the large annual budget deficits of the central government and to the severe balance-of-payment problems that characterized this era, and which eventually forced a shift in policy orientation.[4]

3.2.5 Agriculture and the Structural Adjustment Program

As a country develops, a natural trend over the long term is for the share of agriculture, as a percentage of the country's GDP, to decline. However, this trend should occur naturally; the forced abandonment of agriculture and the resulting reduction of its participation in the

---

[3] The team was unable to find a policy document that includes the policy orientation for economic development in El Salvador. From our meetings with professionals of the Unidad de Análisis Agropecuario, we were able to obtain the agricultural policy guidelines that GOES is actually following.

[4] Overall, the economic policy environment, development management, and the institutional set-up regulating private business activity in El Salvador were poor during the 1980s. Nationalizations and other public economic interventions reduced incentives while raising risk, and the civil strife plunged the country into an economic crisis.

economy rapidly depresses economic growth. In the medium term, El Salvador needs to revitalize the agricultural sector.

For El Salvador, stimulating the supply response and expanding the markets is very important to the agricultural sector, which means seeking new policy frameworks (that do not require large fiscal outlays), to stimulate growth. Developing policy reforms in agriculture means identifying the main bottlenecks to economic growth and switching public expenditures and private resource allocations toward tradable goods.

3.3 Sectoral Policy Setting

3.3.1 Price Controls

Until 1989, the traditional instruments of agricultural pricing policy— guaranteed prices and price controls—were ubiquitously used in El Salvador's agricultural economy, especially for basic grains. These interventions created more distortions than benefits, and in addition were often ineffective. Corn, beans, and rice, with a yearly consumption per capita of 2.47 cwt, 0.36 cwt, and 0.25 cwt, respectively, are the most important basic grains, and the most important items in the food budget of the population. For these reasons, price fixing of grains, import controls, and public sector marketing were key characteristics of basic grain policy until the advent of the economic reforms of 1989.

The process of trade liberalization exposed El Salvador to the full effects of the instability in international agricultural prices. Moreover, the exchange rate policy and a very inelastic domestic demand brought increased supply problems and higher prices, and caused significant fluctuations in production and imports. The concern for price stability, coupled with attempts at free trade, resulted in the conceptualization of a mechanism that would prevent the import of world grain price instability into the national economy. The main component of agricultural production incentives was the introduction of a price band supported by variable tariffs for a limited number of commodities: corn, sorghum, and rice.[5]

As explained elsewhere in the document, the response of basic grain producers was immediate. Both the area planted and the resulting levels of production of the three staple crops increased by 4.4 percent and 2.8 percent per year in the course of the 1990/91 to 1992/93 growing seasons, respectively. The area sown to basic grains, most of which is corn, which had previously decreased to 678,500 mz. in 1989-90, recovered to 761,600 mz. in 1992-93 (Table 3.10 and Figure 3.14).

Price Band Scheme. The price band policy for basic grains is attained via variable import tariffs or subsidies on corn, sorghum, and rice imports, with both floor and ceiling prices set to reflect medium-term trends in international prices. The main purpose of the price band

[5] In a 1975 conference at the Universidad Católica de Chile, the concept was suggested by Edward Schuh.

2

was to reduce the impact of world price fluctuations on the domestic price of basic grains, considering that:

- El Salvador was not self-sufficient in basic grains production.
- International grain prices experience large year-to-year fluctuations, whose lag structure is such that they become known only after annual production decisions have been made.
- The average domestic production cost of grains in the medium term is lower than the average unit import costs, including taxes and transportation costs.
- The commodities are essential food items in the diet of the Salvadoran population.

It was assumed that by reducing price fluctuations, production of basic grains would increase due to less uncertainty and lower price risks, and internal demand would be stabilized. The mechanism applied in El Salvador consists of the fixing of minimum (floor) and maximum (ceiling) price levels. The commodity's import cost must be between the two levels, including import taxes. The process devised to set the annual floor and ceiling values of the price bands include the following steps:

- An ordering from the lowest to highest monthly nominal average FOB price of each commodity over the previous 60 months.
- The elimination of up to 12 of the lowest and 12 of the highest values, followed by the conversion of the 13th and 48th FOB prices to equivalent CIF prices, and then adding the *ad valorem* basic import tariff of 20 percent, transport costs from the ports, and other service costs. The results obtained are the floor and ceiling prices of the band.
- Based on the above, the Ministry of Economy estimates and then applies variable tariffs or subsidies to the import cost. For example, for corn a maximum of 45 percent may be added to equate it to the floor price. When the import cost is below the band, a specific duty is applied; when it is above the ceiling price of the band, a reduction is made to the uniform tariff charged on all imports for that commodity.

The floor price for corn is currently US$112/mt, and the ceiling price is US$142/mt (Table 3.11). No other kind of restrictions exist for the importation of corn.

The price band scheme operates as indicated in Figure 3.15. If the country is a net importer, which El Salvador is, the unit import cost, including the general ad valorem tariff, during the season may be lower than the floor price, such as at *P3*. In this case a specific tariff *t* is imposed to force the import cost up to the level of the floor price. If instead the import cost

31

is between *P1* and *P2*, there will be no additional tariff or subsidy. Finally, if the import cost is above the ceiling price, such as at P4, a specific subsidy of less than 20 percent is provided by an equivalent reduction in the basic tariff.

The domestic prices of corn, rice, and sorghum, which are expected to closely follow the movements in import cost, freely fluctuate within the limits imposed by the floor and ceiling prices as a result of changes in supply and demand conditions both abroad and at home.

3.3.2 Problem of the Sugar Industry

The sugar industry in El Salvador has historically been one of the most successful agroindustries in the country. Six of the sugar refineries are currently government owned but are in the process of being privatized. These government refineries often operated at a loss in the past. The purchase price of cane at these refineries is fixed, and other private firms typically pay the same price in order to compete for the cane.

Processed sugar prices are also fixed by price controls at all levels of the marketing system, from the refinery to the retail outlet. These prices are typically above world market prices but below the U.S. quota prices for sugar. Marginal costs of production are above the world market price and make exporting to any country other than the United States an unprofitable activity. However, exports to these countries still occur. Import of sugar into El Salvador is restricted by licenses and typically does not occur.

The foreign marketing of sugar was previously regulated by marketing quotas given to each refinery for both the domestic and U.S. quota share. In the past, overproduction has taken place in an effort to gain more of the U.S. sugar quota (Carana Corporation 1991). However, future growth in the quota for El Salvador is doubtful due to a number of factors. First, NAFTA may allow Mexico somewhat greater access to the U.S. market in the future. Although Mexico is currently a net importer of sugar from the United States, given the current incentives, Mexican sugar production could respond sufficiently to export more to the United States. Also, there has been some speculation that the U.S. quota for El Salvador and other Caribbean and Central American countries may shrink if Cuba undergoes political democratization.

Molasses sales are also regulated, and, in contrast to other commodities, domestic prices are below world market levels. High local sales provide the domestic livestock industry with lower cost feed inputs (Carana Corporation 1991).

3.3.3 Legal Regime

All commodity systems operate within an institutional environment that consists of a set of fundamental political, social, and legal ground rules. These establish the basis for production, exchange, and distribution. According to Ruttan and Hayami, these ground rules ". . . facilitate coordination among people by helping them form expectations which each person can reasonably hold in dealing with others. They provide assurances with respect to the actions of others and

give order and stability to expectations in the complex and uncertain world of economic relations." The institutional environment or legal regime that governs a commodity system consists of several different types of laws and rules, the most important of which are those that define permissible and nonpermissible forms of competition and cooperation (e.g., laws of contract and liability, standards, licensing rules, and company and cooperative laws) and those that define, allocate, and enforce property rights (e.g., property and bankruptcy laws, ownership and right-to-use laws).

3.3.4 Consumer Rules and Standards

From areview of the laws, as well as from interviews, the team has found that GOES has defined a reasonable set of property rights and regulations pertaining to acceptable and nonacceptable competitive and cooperative actions. Such property rights and regulations should facilitate production and trade. However, in the area of consumer protection against misleading claims and health-threatening foods, the legal framework is rather weak, although improving. The new Consumer Protection Law (Ley de Proteccion del Consumidor) is an important step in the establishment of such a framework; however, careful vigilance and strict enforcement of the law is vital.

3.3.5 Labor and Contract Enforcement

For an export and investment development program to succeed, it must be complemented by a solid legal framework and domestic regulatory reforms that remove disincentives to market competition. An unreliable legal framework coupled with policy-generated barriers to competition can represent significant constraints to efficient development and can lower supply response. These constraints include lack of contract enforcement, restrictions on ownership, restrictions on entry and exit, inflexible labor regulations, differential treatment of public and private enterprises, and discriminatory taxation. The more restrictions that exist, the less likely that foreign direct investments and joint ventures will be forthcoming.

Weak or nonfunctional legal systems also impede competition and market development. Poor contract enforcement laws inhibit long-distance and sight-unseen trading. In the absence of legal recourse to settle disputes, trade and investment will likely be carried out on a cash-and-carry basis with frequent inspections and substantially increased transaction costs. The consequences of no credible enforcement are less investment risk-taking and less business activity.

3.4 Policy Impacts

3.4.1 Impacts on Major Export Crops.

Between 1970 and 1980, coffee, cotton, and sugarcane production showed annual increases of 2.9 percent, 1.3 percent, and 2.6 percent, respectively. Between 1980 and 1990, coffee and cotton decreased -3.1 percent and -23.9 percent, respectively, and sugarcane

39

increased 3 percent (Tables 3.3, 3.4, and 3.5). For the three complete agricultural years of the current government, the trend in area and production shows an annual change of zero, -12.4, and 11.7 percent, respectively. For sugarcane, the source of growth has been in both productivity and in total area cultivated; in cotton, it was productivity. In coffee, there was a decline in yield due to the use of rustic farming techniques (Figures 3.3, 3.4, and 3.5, and Appendix B.3, B.4, and B.5).

For the three periods (1970-80, 1980-90, 1990-93) coffee production was on average around 3.3 million cwt., but the country has the potential to produce much more. The production and productivity levels are around 20 percent and 17.4 percent, respectively, less than its production peak in 1979-80 (Appendix B.3). Sugarcane production is at a historic high due to both area expansion and higher yields. However, the most critical aspect continues to be the sugar extraction rate from the cane, which is relatively low.[6] The case of cotton is important because it is the crop with the greatest multiplier effect and serves as a basis for the textile, vegetable oil, and cattle feed industries. However, its production level, and therefore its influence on the economy, continue to remain very low.

There are also other trends in production, area, and yield that are important. First, as shown in Tables 3.3, 3.4, and 3.5, the 1990-93 instability or variability (measured by the coefficient of variation in production) of coffee (29.3% to 7.3%), cotton (90.2% to 10.4%), and sugarcane (28.4% to 9.6%) are significantly less than in the late 1980s.[7] Second, as the linear trends for coffee and cotton production show (Figures 3.4 and 3.5), the period of civil turmoil caused lower levels of production. Coffee is far from its 1979-80 peak production level, but the decline appears to have stopped.

The removal of price controls, the elimination of marketing monopolies, and the liberalization of the exchange rate have allowed market forces to play a stabilizing role. Moreover, if the 1970-71 to 1992-93 period is divided into three periods, two periods (1970-71 to 1978-79 and another 1989-90 to 1992-93 with no turmoil) and one during the war years, it is apparent that steady growth rates in major export crops of 4.5-5.5 percent per year could be accomplished using current technology.[8]

---

[6] According to Nuñez and Loehr, yields are around 166 lbs/ST, while they should be over 200.

[7] The same can be said about area and yields.

[8] Computation of reliable growth rate in production where seasonal or even instability factors cause annual fluctuations is difficult. Depending upon the length of the period covered, its beginning and end points, and the computation formula, the rates of growth differ greatly, even after the production dates are adjusted for changes in coverage and methods of estimation.

increased 3 percent (Tables 3.3, 3.4, and 3.5). For the three complete agricultural years of the current government, the trend in area and production shows an annual change of zero, -12.4, and 11.7 percent, respectively. For sugarcane, the source of growth has been in both productivity and in total area cultivated; in cotton, it was productivity. In coffee, there was a decline in yield due to the use of rustic farming techniques (Figures 3.3, 3.4, and 3.5, and Appendix B.3, B.4, and B.5).

For the three periods (1970-80, 1980-90, 1990-93) coffee production was on average around 3.3 million cwt., but the country has the potential to produce much more. The production and productivity levels are around 20 percent and 17.4 percent, respectively, less than its production peak in 1979-80 (Appendix B.3). Sugarcane production is at a historic high due to both area expansion and higher yields. However, the most critical aspect continues to be the sugar extraction rate from the cane, which is relatively low.[6] The case of cotton is important because it is the crop with the greatest multiplier effect and serves as a basis for the textile, vegetable oil, and cattle feed industries. However, its production level, and therefore its influence on the economy, continue to remain very low.

There are also other trends in production, area, and yield that are important. First, as shown in Tables 3.3, 3.4, and 3.5, the 1990-93 instability or variability (measured by the coefficient of variation in production) of coffee (29.3% to 7.3%), cotton (90.2% to 10.4%), and sugarcane (28.4% to 9.6%) are significantly less than in the late 1980s.[7] Second, as the linear trends for coffee and cotton production show (Figures 3.4 & 3.5), the period of civil turmoil caused lower levels of production. Coffee is far from its 1979-80 peak production level, but the decline appears to have stopped.

The removal of price controls, the elimination of marketing monopolies, and the liberalization of the exchange rate have allowed market forces to play a stabilizing role. Moreover, if the 1970-71 to 1992-93 period is divided into three periods, two periods (1970-71 to 1978-79 and another 1989-90 to 1992-93 with no turmoil) and one during the war years, it is apparent that steady growth rates in major export crops of 4.5-5.5 percent per year could be accomplished using current technology.[8]

---

[6] According to Nuñez and Loehr, yields are around 166 lbs/ST, while they should be over 200.

[7] The same can be said about area and yields.

[8] Computation of reliable growth rate in production where seasonal or even instability factors cause annual fluctuations is difficult. Depending upon the length of the period covered, its beginning and end points, and the computation formula, the rates of growth differ greatly, even after the production dates are adjusted for changes in coverage and methods of estimation.

3.4.2 Impact on Basic Grains.

As shown in Figure 3.6 and Appendix B.6, corn has reached its highest level of production ever. A comparison of land area and productivity from 1980-90 with that from 1990-93 indicates an increase of 5.2 percent and a decrease of -3.0 percent, respectively. The current (1992-93) national average yield of 30.7 cwt/mz can be increased in the short to medium term. The annual increase of around 2.2 percent per year for the 1990-93 period just kept pace with population growth (Table 3.6). Nevertheless, one of the most rapidly increasing items in the agricultural import bill has been yellow corn for livestock feed.

Sorghum production, after the drought of 1987-88, supported by a growth rate in yield of 3.3 percent per year, reached some 3.6 million cwt in 1992-93 (Figure 3.7). Nevertheless, the area planted to sorghum declined -2.2 percent per year for the 1990-93 period (Table 3.7 and Appendix B.7).

Supported by a healthy growth rate of 8.3 percent (large enough to offset the decline in yield of -4.5 percent) rice production rebounded to 24 million cwt (a 3.6% increase) in 1992, only 2.8 percent lower than the production record of 1985-86 (Figure 3.8). The rice production and the amount of area planted to rice, as measured by the coefficient of variation (Table 3.8), are significantly more stable in the 1990s: 3.5 percent and 6.9 percent, respectively. Unfortunately, instability in yield has reached its highest level (21.1%) during the 1990-93 period, due in large part to drought (Appendix B.8).

As shown in Figure 3.9, beans are at record high production levels (rate of growth = 12.1% per year during 1990-93), but yields have only increased 0.8 percent (Table 3.9). The area planted to beans in 1992 was 113.9 thousand mz., some 24.3 percent more than the 91.6 thousand mz. planted in 1989-90 (Appendix B.9).

In sum, production of basic grains was higher for 1992-93 than for 1989-90. The highest growth rates were in beans and rice. For the traditional exports group, the highest growth rate was exhibited by sugarcane, the result of increases in area and yield.

3.4.3 Impact on Livestock, Poultry, and Shrimp.

Poultry production increased some 6 percent per year during the 1990-92 period, led by chicken (10 percent) and egg production (4 percent). Beef and milk production remained fairly constant, a good sign because the size of the herd increased by 4 percent, which indicates that investments in the sector are occurring.

Higher levels of investment have also been made in cultivated shrimp production, which is a capital-intensive activity requiring some US$10,000 per hectare. Currently, there are about 200 hectares of shrimp farms in operation or under construction. According to FUSADES (Nuñez and Loehr), a total of 7 thousand hectares are potentially available for shrimp farming.

Much of the land suitable for aquaculture is located in the eastern portion of the country, the area most affected by the war. With peace, more investments should be forthcoming.

The second step toward integration of policy would be to properly integrate agricultural policy with policies for the rest of the economy. It is necessary to formulate a clear conceptualization of the role that agriculture is expected to play in the economy's development.

Future production increases will have to come mainly from increased yields rather than from expansion of the area cultivated.[9] Export diversification is required to reduce vulnerability of the economy to international shocks. However, the attainment of these objectives is limited by the:

- Budget constraint: low allocation of public resources to the agricultural sector.
- Market access constraint: poor marketing systems and institutions.
- Infrastructure constraint: weak agricultural infrastructure support.
- Land restraint: the natural resource base.

3.4.4 Impacts of the Price Band System, 1989-93.

By reducing price uncertainty and instability, the announcement of a floor price at planting time was anticipated to have a significant impact on corn, sorghum, and rice production. Moreover, with the reduction in the transmission of fluctuations from the international to the domestic market, the price band scheme was expected to reduce risk and uncertainty in the generation of farmers' real incomes.[10] Therefore, farmers with a positive supply price elasticity were expected to respond to more stable prices by increasing output.[11]

To test these expectations, some questions must be answered. What has been the impact of the price band policy on average domestic prices? Have prices in fact become more stable? What has been the impact on corn, sorghum, and rice supply of the adoption of new technology?

---

[9] In El Salvador, it is becoming increasingly difficult, and costly to the environment, to expand the cultivable area, so in the future, growth will depend more on productivity increases than it has in past decades.

[10] Using certain econometric models, it has been tested that the variations in world prices are almost fully transmitted to domestic prices.

[11] It has been found that the supply price response for these commodities is positive, but somewhat low in the short term. The supply response is larger and statistically significant in the long term. Ramos et al., in 1992, using separate area and yield equations, found values for corn (0.13); sorghum (0.11); and rice (0.41). Vanegas (1991), using production equations, found values for corn (0.20); sorghum (0.12); and rice (0.47).

-13

Price Behavior. The test used here to determine the price impact of the basic grains band policy is a comparison of the coefficient of variation and variances of the domestic real producer, wholesale, and retail prices during the periods 1980-89 and 1990-93.[12]

According to the data in Table 3.12, average real domestic prices (producer, wholesale, and retail) during the period of application of the band system have been less variable than during the 1980-89 period according to the variances and coefficients of variation. In fact, during the first three crop seasons, the price interventions discussed here appear to have stabilized all prices, increased farm-gate prices, and led to an average nominal rate of protection of about 29 percent, 26 percent, and 27 percent for corn, sorghum, and rice respectively, over and above the nominal protection afforded by the ad valorem tariff applied on all imports.[13]

3.4.5 Impact on Production and Technology.

As shown in Table 3.10, staple crop production (corn, sorghum, and rice, but excluding beans) has increased significantly. The production growth of 2.8 percent per year was largely due to an increase in cultivated area. Again, average production during 1990-93 was less variable (as measured by the coefficient of variation) than during the 1980-89 period. The performance of yields indicates that until now, technological changes and innovations were not induced by the favorable economic environment that prevailed during the 1990-91 to 1992-93 period, but this result is not surprising because innovations, such as introduction of new varieties, occur more in the long term.

Conclusions. The price band policy instrument has decreased price variability at all levels of the marketing chain.[14] The production of basic grains (corn 2.2%, sorghum 1.1%, and rice 3.6%) has increased steadily since 1990 as a result of more favorable production conditions that include the reduced price uncertainty due to early announcements of the price band range, the increase in nominal protection rates, and more favorable macroeconomic conditions. (How much of the supply shift in basic grains estimated for the period 1990-91 to 1992-93 can be attributed to the price band system is still unknown and would be an interesting point for future study.)

The price band mechanism established in El Salvador has been easy to implement and is well administered. With the elimination of IRA, supply and demand forces determine

---

[12] Comparison of averages, variances, and coefficients of variation between the domestic prices and the border prices were not made. This type of analysis can be done in a more specific study of price transmissions. Another measure of variability that can be used is the Z-statistic.

[13] The averages should be interpreted with caution because the information obtained was incomplete.

[14] Recently, Mundlak and Larson (1992) found that the estimated transmission elasticity from world prices to domestic prices for El Salvador is 0.90. Moreover, the value of R^2 equal to 0.80 indicates that a high proportion of the variation in domestic prices are accounted for by the variations in world prices. Thus, El Salvador's prices are highly linked to external prices and the price band plays a modest stabiliging effect.

4

domestic market clearing prices at all levels of the marketing chain. If the full effect on farmers' incomes has not been felt, it is due in part to imperfections in the domestic marketing process.

Currently, only the floor prices have been relevant, not the ceiling prices. The same has happened in other countries using price bands such as Chile, Peru, Ecuador, and Honduras. Analysts, private sector representatives (including poultry and livestock groups), and government officials generally agree that the policy should remain in force to allow more time for technical changes to take place. However, some would prefer a reduction to 10–15 percent in the variable tariff.

3.5 Recommended Reforms

In the aggregate, two relevant sources of sustained agricultural growth are expansion of planted area and increases in yields. Due to land limitations and the scarcity of resources for agricultural investment, El Salvador's economy must invest more in programs and projects that involve technological change and higher-valued crops. From the point of view of economic sustainability, the current price band policy should continue. Improvement in farmers' incomes in the long term will increase the size of the domestic market for nonagricultural goods and services and save foreign exchange.

In terms of social sustainability, as long as production alternatives are not readily available, the elimination of the current price band system could trigger social disruption in the rural areas. If the price band system is visualized as an instrument in support of an agricultural development strategy, it will succeed in reducing rural-to-urban migration and improving the average nutritional situation of the rural poor.

One special lesson should be emphasized: successful implementation of any kind of policy reform requires consistency over time in its application. The uncertainty created by inconsistencies in previous policies has in the past discouraged investment and production. The idea to vary or even eliminate the price band at this early period of the structural adjustment program of El Salvador, when the majority of the farmers are just beginning to understand price fluctuations and markets, can cause irreversible damage. Constant vigilance and monitoring of the price band system and the performance of its commodities is both required and essential.

The continuing process of privatization of sugar refineries is an important step toward reform of the sugar industry. However, the Ministry of Economy should take measures in the privatization process to deter oligopolistic or even monopolistic market tendencies that would exploit sugar farmers in the short term and lead to a reduction in sugar production in the long term. A gradual reduction of the government-controlled price to bring it more in line with the world price will force Salvadoran producers to become more competitive, but also will provide the industry as a whole with more export opportunities in the world market.

3.5.1 Marketing Policy, Information, and Access

In the area of marketing, private exporters are able to position Salvadoran commodities in the best markets and transfer some of their economic gains to the producer. Recent information indicates that producers are being paid with fewer delays. However, it is clear that resources are being inefficiently allocated in the transportation, storage, and, to a lesser degree, the processing of agricultural commodities. It also appears that public wholesale facilities need to be renovated and enlarged to permit more competition among wholesalers and retailers.

Other factors that affect the efficiency of agricultural markets are weak market infrastructure, poor measures and quality standards, and lack of appropriate financial instruments to permit the operation of a system of certificates of deposit so that producers can borrow against commodities stored in bonded warehouses, thereby avoiding the need to sell at harvest time when prices are at their lowest.

GOES needs to play a far stronger role, and USAID should offer financial support, in correcting market failures through the provision of infrastructural support and market information to a wider audience. Investment in roads and other transport structures that increase the accessibility of farmers to key markets is clearly a function of the public sector because the private sector lacks the incentives to make these investments. Thus, more public funds should be allocated to improving main roads, feeder roads, and port facilities. These investments will stimulate sustainable long-term growth by making markets more accessible to producers and traders.

Expansion of the market information data service is recommended because information on domestic and international production, prices, and market requirements is not being rapidly disseminated throughout the country. The data can be transmitted through various communication media (e.g., radio, newspapers, bulletins). This type of service provides valuable information that can be interpreted and used by producers, investors, and traders. In addition, it can help weaken the hold of local monopolies on the marketing chain where they exist.[15] A more unified and better coordinated information service consisting of FUSADES, MAG, COEXPORT, FOMEX, and the Ministry of Economy should be encouraged and financially supported.

Agricultural markets in particular are information intensive. For any single commodity, spatial and temporal surpluses and deficits exist, but the judgment of a myriad of producers, consumers, and traders are required to discern these imbalances. At the same time, the attainment of financial gain must be permitted in order for the private sector to accept the risks of market fluctuations and storage to correct these imbalances. No public institution has yet been devised that can pool, utilize, and manage such large amounts of information as effectively as do free markets. This does not, however, imply that the removal of public enterprises from

[15] Currently, the MAG broadcasts some prices over the radio.

agricultural markets would lead to a resolution of all inefficiencies in El Salvador's agricultural marketing sector.

First priority should be given to the development of a market information system. In the domestic market, in particular, entrepreneurs need to know the prices paid for commodities in other markets and temporal imbalances in product supply and demand. In the case of commodities whose prices can be affected by international trade, entrepreneurs should be given access to up-to-date forecasts of world market conditions and their implications for domestic markets. This type of information system can be jointly implemented and managed by the public and private sectors.

A second priorty would be a well-articulated and consistently enforced system of standards is urgently needed. Standards, which may include basic weights, measures, and quality grades, provide farmers and marketing agents with a more exact language to communicate offers, norms to compare actual with expected behavior, and a more detailed and objective view of the actual outcome. Quality standards may be mandatory or voluntary, and they may be minimum standards or include multiple grades. Provision and enforcement of commodity grades and standards is one example of regulation that can generate significant benefits to producers, agribusiness firms, and consumers alike.

3.5.2 Use and Land Tenure

As recent findings indicate, agricultural land use in El Salvador sustained only modest changes between 1990-1992. Most of the major changes occurred in the 1980s. Coffee, basic grains, and sugarcane remained critical crops, accounting for 80-85 percent of all cultivated land. The most significant changes are the near disappearance of cotton production, an extensive land reform, and increases in food imports. All of this, when combined with no changes in technology and a rise in population, can pose land use and tenure problems. The similarities of land use also indicate problems for soil conservation as well as production. Reduced forestland is evidence of the growing pressure to gain access to land and a corresponding disregard for, or ignorance of, environmental impacts and long-term sustainability.

As pointed out in the 1993 Land Tenure Study, land poverty is pervasive (57% landless or land poor [< 1 mz.]). As a result, most agricultural operators rent with little incentive to invest in land improvements. An additional 45,000 persons will be accommodated under the Peace Accords. Once this land transfer is completed, the GOES will need to grapple with the "disincentive problem" posed by the dominance of rental tenure and trade-offs between cash crop and food crop agriculture. The agrarian structure will shape future growth trajectories.

A third priority would be to strengthen legal procedures to monitor and enforce contract agreements is extremely weak. Information or complaints related to trade difficulties was received from producers' groups who claimed that even when legal recourse was possible, the time and financial costs of pursuing a judicial remedy were too high and deterred them from exercising their rights. The end result has been that the generation of trust in their trade

relationships and the forging of relationships based on reciprocity have been hampered by the risk of information distortions.

3.6 Conclusions and Recommendations

The analysis provided above supports the contention that over the next five years growth in agricultural output will rely to a large extent on increases in both cultivated area and adoption of new technology. This aspect of agricultural growth has implications for labor flows, migratory patterns, land tenure disputes, infrastructural development, environmental regulation and protection,and social service expansion. The team argues that in the short-run, there are still large areas of medium-to-high potential—underutilized land that needs to be brought back into cultivation. On yield increases as the only source of growth, it would be possible until the agricultural frontier has been exhausted.

Agricultural expansion has resulted from the increase in the production of food for a resurgent domestic market. This has been possible because the population tried to recapture consumption levels of the mid-1970s, combined with release of the foreign exchange constraint, rehabilitation of key infrastructure, and the adoption of free-market policies, including the decontrol of food prices and trade. The rapid rise of urban incomes—and demand—resulted in part from the refurbishment of industries, sérvices, and government. The foreign exchange has come from donor support and remittances.

If current levels of growth in the domestic market are to continue, the focus will have to be on raising rural incomes through technological change and increase in labor productivity; and, diversifying of export markets.

Profits and rents from coffee and cotton have been severely reduced to keep the country competitive in international markets. Successful international competition now requires continued increases in the efficiency of export production and processing with little margin for taxation. Increased competition in the coffee industry should result in improved processing and export marketing efficiency. Open markets in foreign exchange will result in investment export-oriented industries. However, the rehabilitation of the cotton sector will be fairly complex and cumbersome due to the pesticide problem and will proceed slowly.

In summary, the most fragile aspect of the recovery program in El Salvador now is the weak response in exports—which must grow in value in the next few years if economic growth is to be sustained. The scope for continued rapid growth in food production will be limited in the future, due to its dependence on the size of the domestic market and the land constraints. In light of this, in the short-term, the agenda for adjustment and investment should continue to focus on increasing agricultural exports in traditional export crops as rapidly as possible, while seeking diversification among the least investment-intensive nontraditional agricultural exports. Changes in land taxing policies and substantial investments and contract enforcement in infrastructure, research, education and extension will be necessary to provide incentives and produce an auspicious environment.

Table 3.1 Policy Reforms in Agriculture and Selected Economy-wide Adjustments, El Salvador, 1989–1993

Objective	Constraints	Policy Actions Taken	Accomplishments
To improve marketing efficiency and leave market forces and private sector to operate without restrictions	Presence of monopolies in sugar (INAZUCAR), coffee (INCAFE), cotton (COPAL), and basic grains (IRA)	INCAFE, COPAL, and IRA eliminated, allowing the private sector to compete openly.	Private exporters gaining confidence.
		The Salvadoran Coffee Council is established to implement coffee policy and to monitor marketing. ISIC is abolished.	Controls of coffee exports, contracts, and certification have improved.
	Budget constraints to run businesses	Public payroll of INAZUCAR is reduced; employees of IRA dismissed.	Pressure on the fiscal deficit has been reduced.
	Late payments discourage production.	Payments to farmers by INAZUCAR are being made with fewer delays. Private sector has accelerated the exchange period along the marketing chain.	Efficiency and market conduct have improved.
	Corruption rampant and vested interests block institutional reforms. INAZUCAR still exerts domestic sale regulations and price controls.	Reduction of personnel. Price for sugarcane is based on quality and arrived at through negotiations.	Production and yields have improved.
	Market information poor, at best	Some radio reports on prices distributed by MAG.	More market information still needed.
Enhance price transparency, stabilize prices, and reduce instability.	Price transmission to producers still less than expected. Instability and price risk still high.	A price band mechanism is established for corn, rice, and sorghum. Price controls are eliminated.	Real prices have improved, instability has been reduced, and production is responding.

Table 3.2: Growth Rates[16] and Correlation Coefficient of GDP and Agricultural GDP at 1962 Prices, 1950-93

Period	GDP	GDP Agriculture	Correlation Coefficient
1950-60	5.3	4.4	82.9
1960-70	5.8	3.0	74.7
1970-80	4.1	3.4	71.4
1980-90	-0.7	-0.6	71.0
1980-85	-1.6	-2.3	70.3
1985-90	1.8	0.9	70.7
1990-93	4.0	3.2	70.2

Source: Ministerio de Agricultura y Ganadería, Dirección General de Economía Agropecuaria; Anuario de Estadísticas Agropecuarias, several issues; Banco Central de Reserva de El Salvador, Memoria y Revista Trimestral, several issues; and FAO Production Year Book, several issues.

[16] Calculation of annual average growth rate is made using the equation: GDP = α exp ß Time, where ß gives the growth rate. The correlation coefficient R=Covariance (X,Y)/Sx*Sy, where Sx and Sy are the standard deviations of agriculture value and GDP, respectively.

Table 3.3 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Coffee, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	2.9	-3.1	-5.1	0.4	0.0
Area	2.8	-0.8	-2.3	1.3	1.4
Yield	0.0	-2.2	-2.7	-0.8	-1.4
Coefficient of Variation					
Production	12.3	15.4	16.8	29.3	7.3
Area	9.8	4.2	4.2	2.4	2.5
Yield	7.9	13.0	9.9	28.8	11.7

Table 3.4 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Cotton, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	-1.3	-23.9	-14.7	-27.1	-12.4
Area	0.7	-22.6	-14.6	-23.9	-15.4
Yield	-2.0	-1.3	-0.1	-3.1	2.9
Coefficient of Variation					
Production	16.2	63.9	45.2	90.2	10.4
Area	16.6	62.4	24.4	47.0	13.0
Yield	7.7	9.4	6.7	21.9	9.1

Table 3.5 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Sugarcane, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	2.6	3.0	11.8	-0.3	11.7
Area	3.3	2.6	8.0	-1.2	5.6
Yield	-0.7	0.5	3.8	0.9	6.1
Coefficient of Variation					
Production	20.3	18.2	36.4	28.4	9.6
Area	17.6	15.0	13.6	13.7	5.3
Yield	20.8	12.2	15.9	20.2	8.6

53

Table 3.6 Annual Growth Rates and Coefficient of variation of Production, Area, and Yield of Corn, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	4.8	2.4	-0.2	5.2	2.2
Area	3.7	0.6	-3.1	2.1	5.2
Yield	1.1	1.8	2.9	3.1	-3.0
Coefficient of Variation					
Production	20.8	12.2	15.9	20.2	8.6
Area	12.8	6.8	7.7	4.3	4.5
Yield	13.6	8.6	13.9	13.9	37.2

Table 3.7 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Sorghum, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	0.2	-1.2	-0.5	7.9	1.1
Area	0.6	0.8	-0.7	1.6	-2.2
Yield	-0.3	-2.0	0.3	6.3	3.3
Coefficient of Variation					
Production	7.3	26.7	9.5	66.5	9.4
Area	5.4	4.1	2.6	3.8	2.2
Yield	7.1	26.2	8.6	66.1	11.0

35

Table 3.8 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Rice, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	2.5	1.9	4.4	1.9	3.6
Area	2.9	-0.1	1.6	0.0	8.1
Yield	-0.4	2.1	2.8	2.0	-4.5
Coefficient of Variation					
Production	24.2	19.2	40.2	30.4	3.5
Area	17.1	13.9	15.1	13.7	6.9
Yield	13.9	9.0	16.2	10.4	21.1

Table 3.9 Annual Growth Rates and Coefficient of Variation of Production, Area, and Yield of Beans, El Salvador, 1970-1993

Category	1970-1980	1980-1990	1980-1985	1985-1990	1990-1993
Rate of Growth					
Production	3.6	2.0	0.3	7.4	12.8
Area	3.9	2.5	2.8	1.7	12.1
Yield	-0.3	-0.5	-2.5	5.7	0.8
Coefficient of Variation					
Production	14.6	20.5	19.8	46.9	11.3
Area	13.7	8.5	5.5	4.4	10.3
Yield	10.1	18.0	19.3	43.5	4.8

51

Table 3.10: PRODUCTION, AREA PLANTED AND YIELDS OF STAPLE CROPS, EL SALVADOR, 1989-90 to 1992-93

PERIOD	PRODUCTION (000/cwt)	AREA (000/mz)	YIELD (cwt/mz)
1989-90	18,398.1	678.5	27.12
1990-91	18,860.6	697.2	27.05
1991-92	17,299.2	747.8	23.13
1992-93	19,959.6	761.6	26.21
AVERAGE	18,706.5	735.5	25.53
RG (90-93)%	2.8	4.4	- 1.6
CV (80-89)%	13.6	7.6	11.6
CV (90-93)%	7.1	5.5	8.1

SOURCE: MAG

NOTE: Because of the type of analysis, data for beans have been excluded from the total of staple crops. In the study by Liévano Della Torre and Norton, beans are included in the total for staple crops.

Rate of Growth (RG) = $\alpha \exp^{\beta}$ time where β provides the rate of growth.

Coefficient of Variation (CV) = $(S/\mu) * 100$, where S is the standard deviation and μ is the mean.

58

Table 3.11: APPLICATION OF THE PRICE BAND MECHANISM TO CORN, EL SALVADOR, US$/MT, JUNE 1990.

Market Price	Variable Tariff	Final Price
Decreasing Variable Tariff		
More than 160.0	5%	------
160.0	5.2%	168.32
150.0	12.5%	168.75
Basic Tariff		
142.0	(20%) 28.4	170.40
112.0	(20%) 22.4	134.40
Increasing Variable Tariff		
105.0	(28.3%)	134.71
96.0	(40.8%)	135.16
less than 96.0	(45.0%)	------

Source: Ministerio de Economía, Tariff Table Resolution No. 196, June 20, 1990; see also López, pp 201-202.

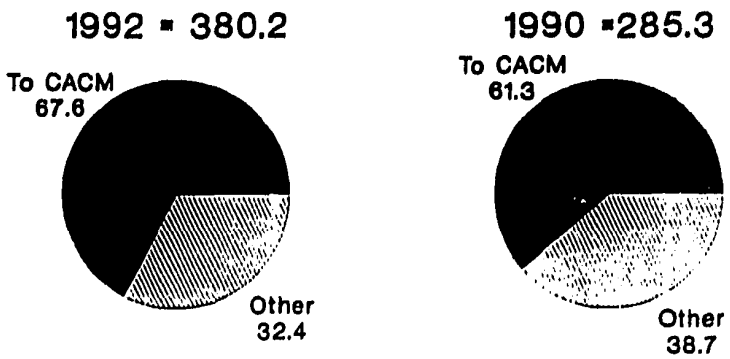
Note: The floor and ceiling price range is announced before the planting season.

59

Table 3.12: PRICE BAND PERFORMANCE COMPARISON BETWEEN PRODUCER, WHOLESALE, AND RETAIL PRICES OF CORN, SORGHUM, AND RICE, EL SALVADOR, 1980-89 VERSUS 1990-93

CORN						
	COEFF. VARIATION %			VARIANCES		
PERIOD	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER
1989-92	6.60	6.20	5.80	0.26	0.21	0.24
1980-89	21.50	22.40	22.70	4.07	8.15	11.04
SORGHUM						
	COEFF. VARIATION %			VARIANCES		
PERIOD	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER
1989-92	12.80	6.10	5.90	0.20	0.20	0.16
1980-89	27.80	17.90	18.80	6.89	4.75	6.53
RICE						
	COEFF. VARIATION %			VARIANCES		
PERIOD	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER	PRICE PROD.	PRICE WHOLESALE	PRICE CONSUMER
1989-92	29.30	15.80	16.20	7.68	16.08	21.48
1980-89	43.40	27.90	26.50	38.56	70.84	87.29

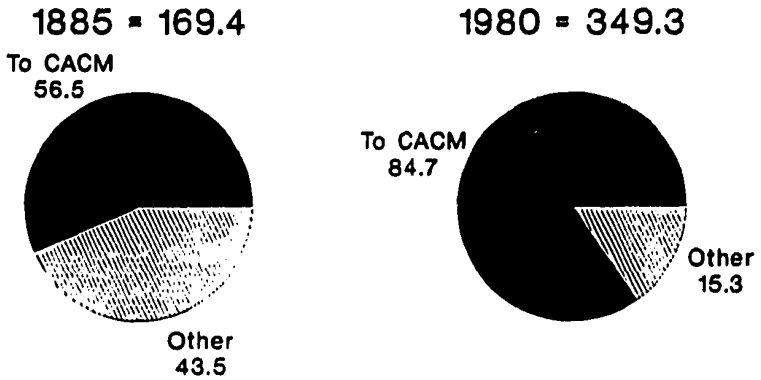
Figure 3.1: Direction of Non Traditional Merchandise Exports, El Salvador, 1970-92
Million of US$ Current Dollars, FOB



Annual Rate of Growth 1990-92, 13.4%

Annual Rate of Growth 1985-90, 11.2%

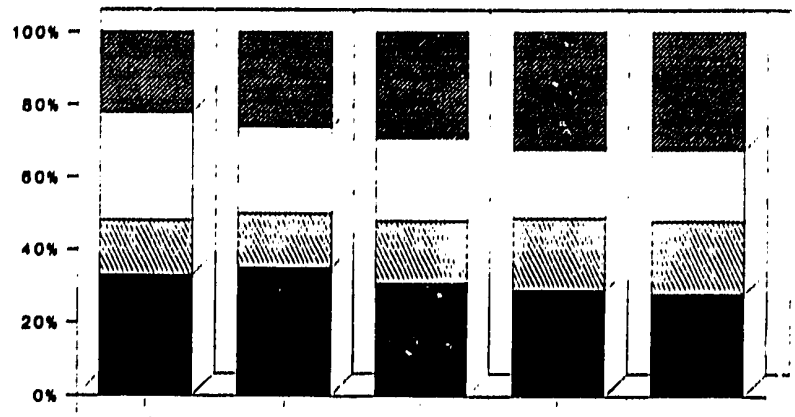
Annual Rate of Growth 1980-90, -1.5%



Source: Banco Central de Reserva, and IMF.

61

Figure 3.2: Share of Agriculture Value Added, El Salvador 1990-92
(At Constant 1962 Prices)

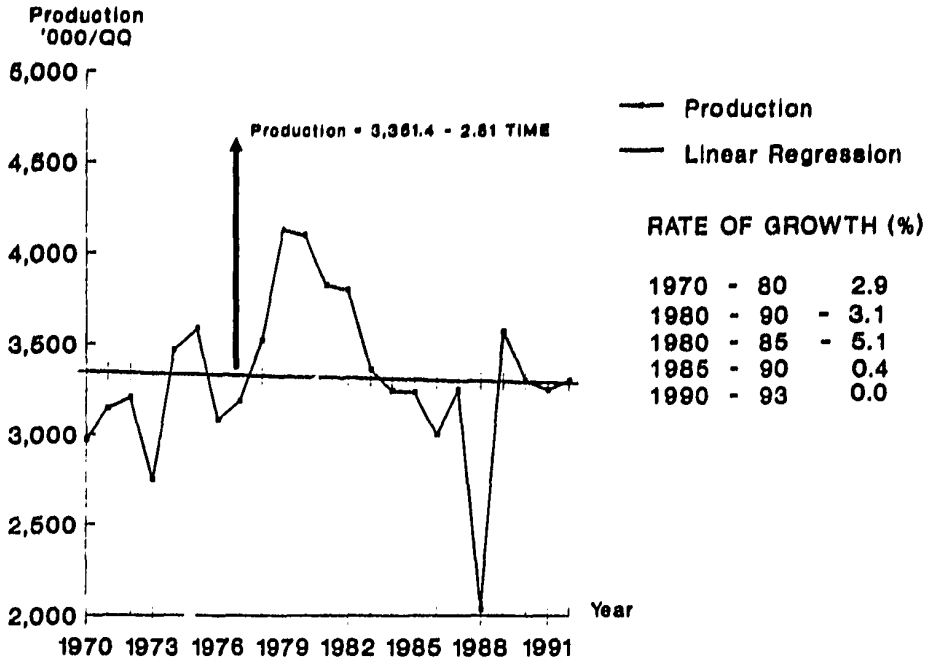


	1970	1980	1985	1990	1992
Livestock & Poiutry	22%	26%	29%	32%	32%
Others	30%	24%	23%	19%	20%
Grains	15%	15%	17%	20%	20%
Coffee	33%	35%	31%	29%	28%

Coffee | Grains | Others | Livestock & Poiutry

Source: Table Appendix B.2

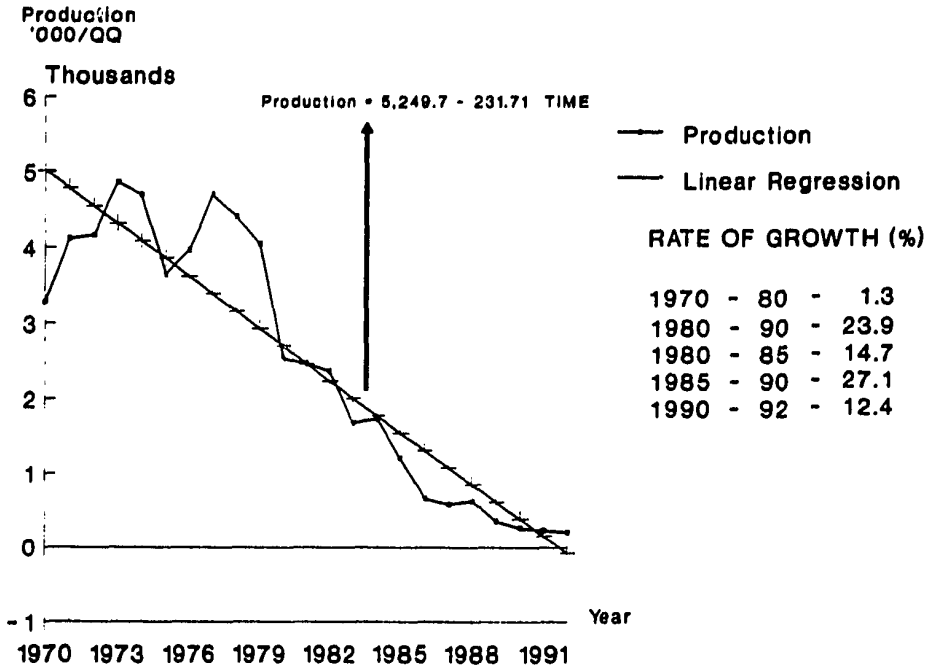
Figure 3.3: Linear Trend in Coffee Production in El Salvador, 1970-93



RATE OF GROWTH (%)

1970 - 80	2.9
1980 - 90	- 3.1
1980 - 85	- 5.1
1985 - 90	0.4
1990 - 93	0.0

Figure 3.4: Linear Trend in Cotton Production in El Salvador ,1970-93



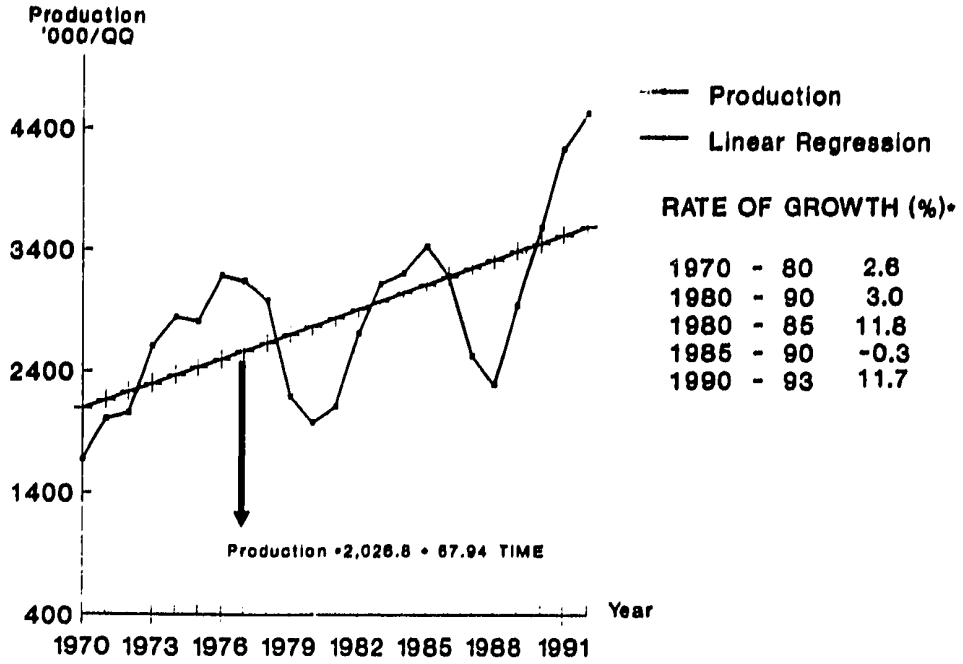
RATE OF GROWTH (%)

1970 - 80	- 1.3
1980 - 90	- 23.9
1980 - 85	- 14.7
1985 - 90	- 27.1
1990 - 92	- 12.4

Source: Appendix B.3 and B.4

62

Figure 3.5: Linear Trend in Sugar Production in El Salvador, 1970-93



Source: Appendix B.5

Figure 3.6: Linear Trend in Corn Production, El Salvador, 1970-93

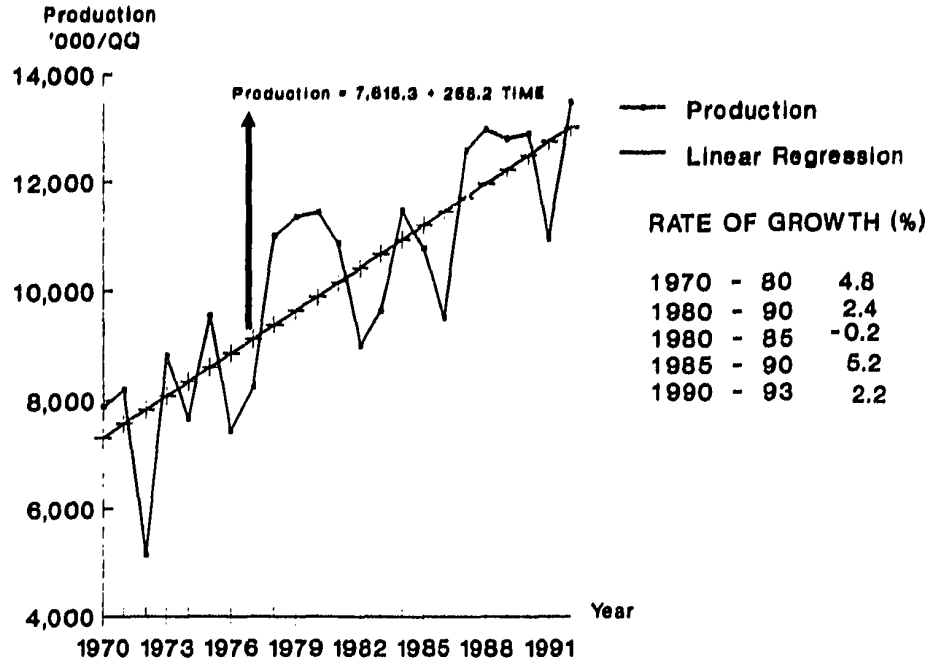
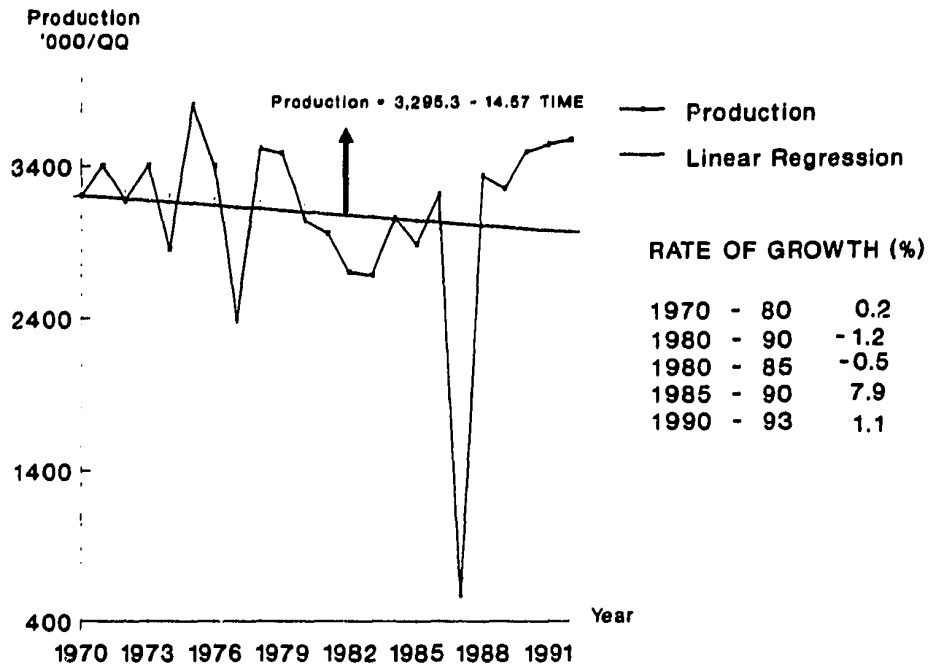


Figure 3.7: Linear Trend in Sorghum Production, El Salvador, 1970-93



Source: Appendix B.6 and B.7

65

Figure 3.8: Linear Trend in Rice Production in El Salvador, 1970-93

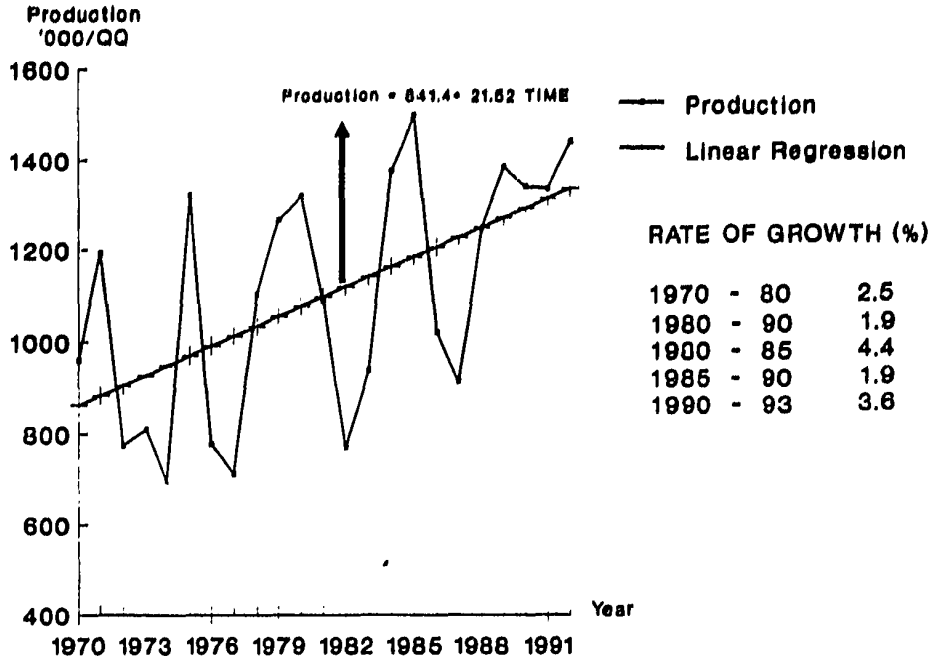
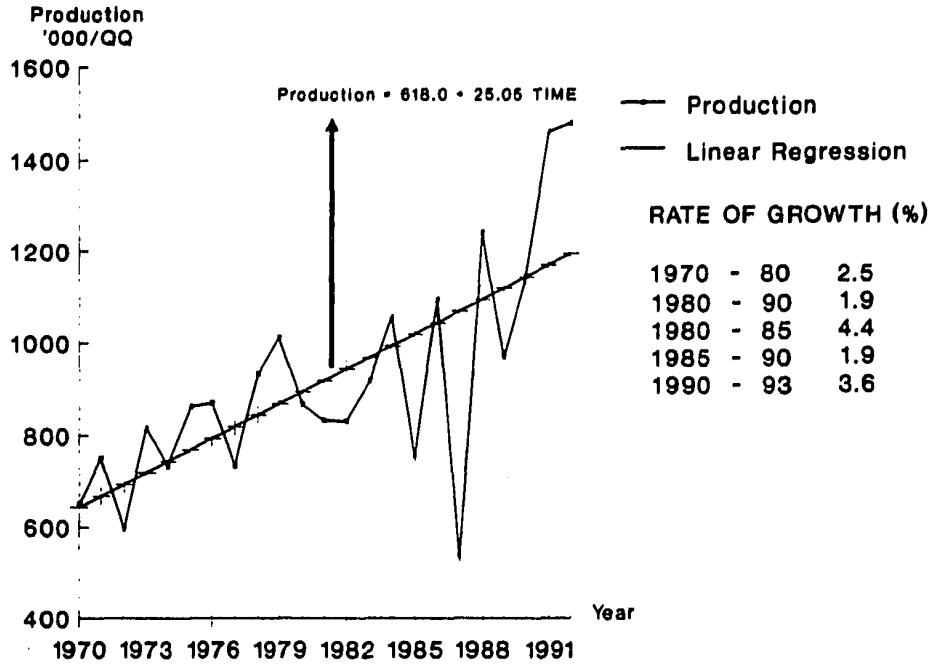


Figure 3.9: Linear Trend in Beans Production in El Salvador, 1970-93



Source: Appendix B.8 and B.9

66

Figure 3.10:
Farm-Retail Price Relationship of Corn,
El Salvador, 1980-93

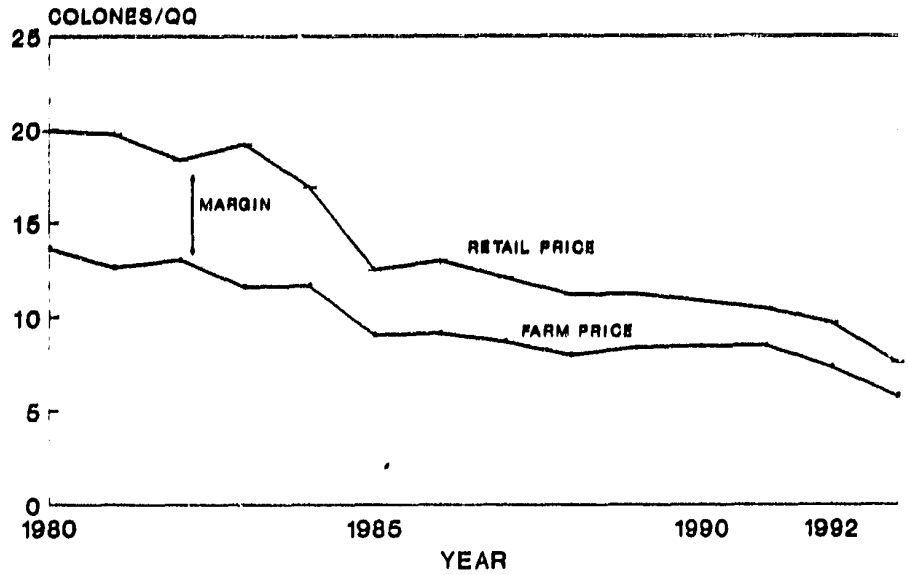


Figure 3.11:
Farm-Retail Price Relationship Sorghum
El Salvador, 1980-93

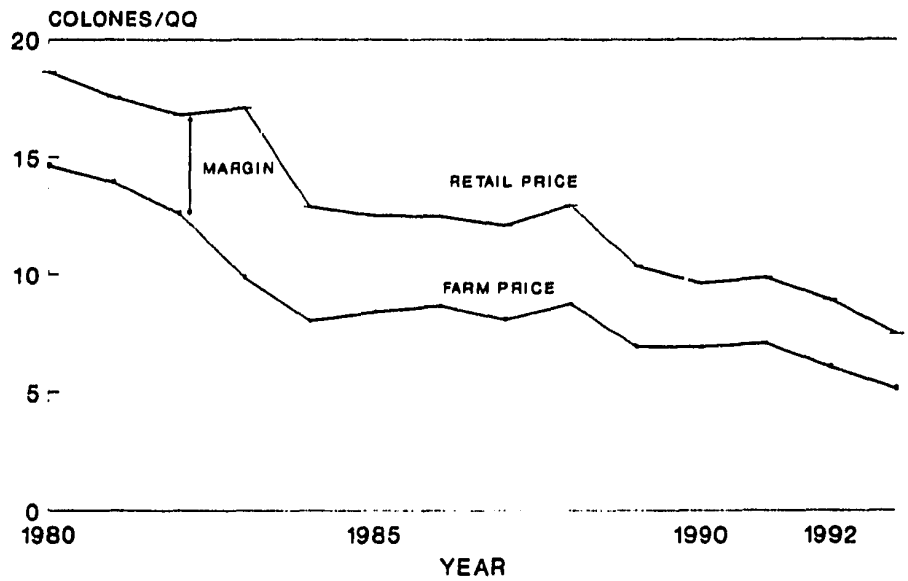


Figure 3.12:
Farm-Retail Price Relationship of Rice
El Salvador, 1980-93

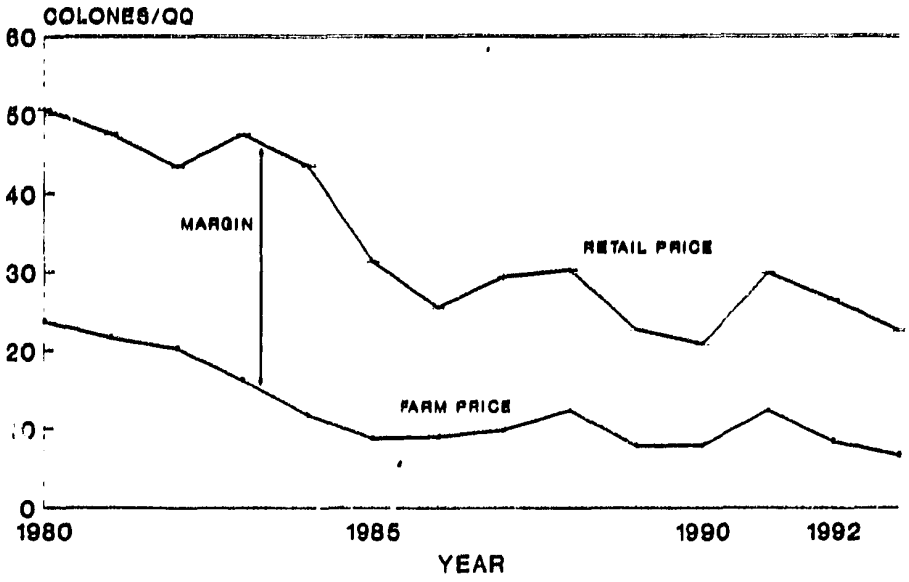


Figure 3.13:
Farm-Retail Price Relationship of Beans,
El Salvador, 1980-93

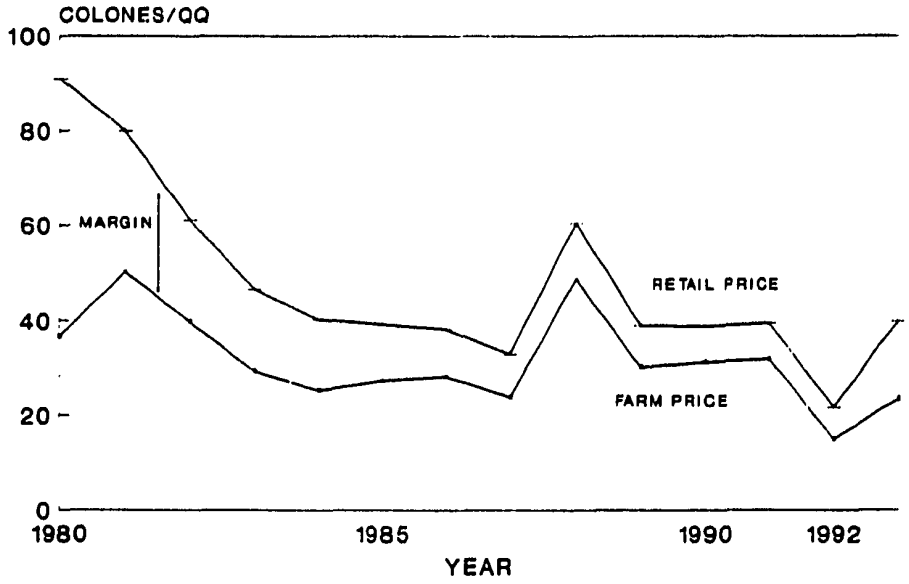
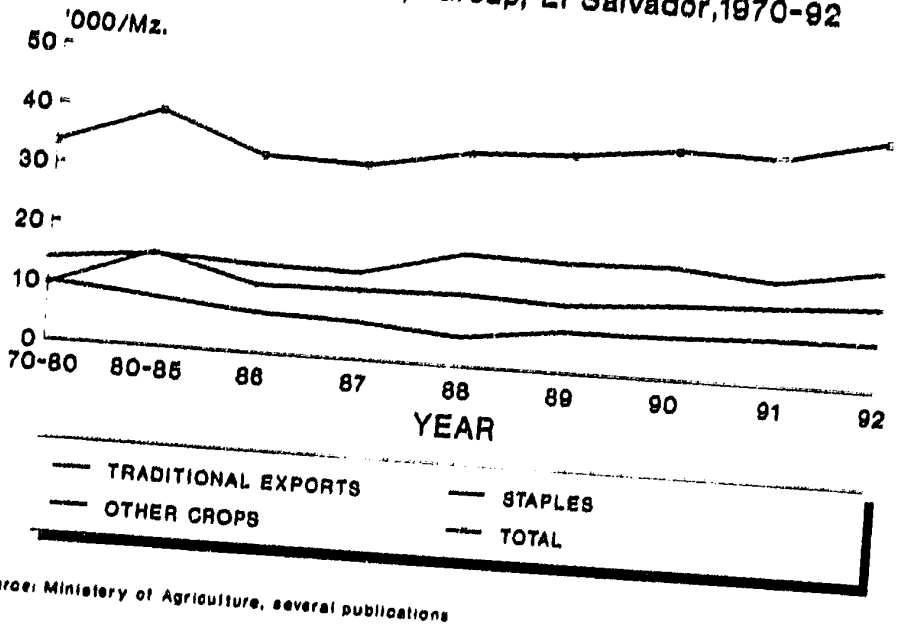
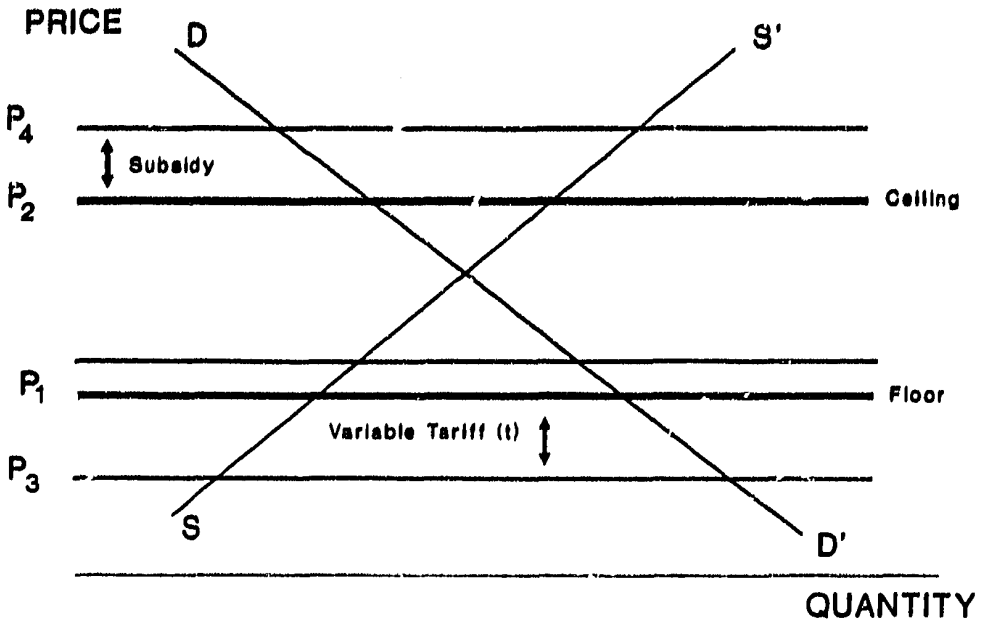


Figure 3.14: Agricultural Land Use by Crop Group, El Salvador,1970-92



Source: Ministery of Agriculture, several publications

Figure 3.15: Operation of the Price Band in El Salvador



10

4. EXPORT INCENTIVES AND INVESTMENT PROMOTION

4.1 Conceptual Framework

A well-conceived export promotion program implies a clear national plan with strategic long-term objectives, a set of coherent macroeconomic and sectoral policies, and effective institutional support from both public and private entities in Toto, provide either a policy neutral or export-biased setting for exporters. Export promotion is not so much an objective as a means to an end. The end is capitalizing on a country's comparative advantage in the international marketplace and then progressively innovating and adapting to new challenges and opportunities. If the strategy is successful, then foreign exchange and employment generation will result. If an export campaign is based on export subsidies it violates the notion of specialization in least-cost production and implies large costs to both consumers and the government treasury. If an export campaign is based on generating as much foreign exchange in the short term as possible, regardless of long-term competitiveness, external developments such as changes in preferential access to the destination market or the emergence of more cost- efficient producers can quickly vanquish the initial gains.

The adoption of an outward-oriented growth strategy or export promotion, however, does not mean that import substitution is antithetical. The two policy stances are neither contradictory nor mutually exclusive. The same sound macroeconomic policies that underline an export strategy (realistic exchange rate, low inflation, adequate infrastructural investments, human capital formation, wage restraint, market-determined pricing, limited regulation) also provide incentives to import substituters. In practice, the two have coexisted. Successful Asian exporters have long protected certain sectors and gradually lowered barriers only on activities considered vital for the move up the value-added ladder (Samayoa Urrea 1989). What is fundamental is that exporters must be on the same footing as foreign competitors. They may be disfavored vis-à-vis importer substituters, but as long as they can remain competitive in the international marketplace, the export strategy will not be prematurely doomed.

An export- or outward-oriented trade regime, defined in analytical terms, exists when the relative effective exchange rate for exports is equal to or greater than the relative effective exchange rate for imports.[1] A pure import substitution regime exists when the nominal effective exchange (EER) for imports is greater than the one for exports.

[1] EER_m = Sum $w_i*(P_{mi} / Q_{mi})$ where w_i is the share of product i in total imports, P_{mi} is the domestic price of an importable, and Q_{mi} is the international price of an importable. EER_x = Sum $w_j*(P_{xj} / Q_{xj})$ w_j is the share of product j in total exports, P_{xj} is the domestic price of an exportable, and Q_{xj} is the international price of an exportable.

Neutral Incentive Bias or Export Promoting	$EER_m = EER_x$
Ultra Export Bias	$EER_m < EER_x$
Import Substitution Bias	$EER_m > EER_x$

Critics of export promotion strategy rely either on elasticity, pessimism or fallacy of composition. Arguements that developing countries tend to produce the same range of tropical agricultural export products that face low income demand elasticities. Others argue that all countries cannot prosper by concentrating in the same light industries and food processing. Proponents of export promotion refute these arguments by citing empirical evidence indicating that countries with open trade regimes have tended to outperform pure import substituters in GDP and export growth rates and that intraindustry and South-South trade nexuses have not been fully tapped (Krueger 1978; Lal and Rajapatirana 1987). Second, given the small size of most developing economies, large external debt loads, and the high social costs of pure import substitution strategies, most developing countries have no choice but to pursue liberal policies. The clear threat to export promotion, nonetheless, is creeping protectionism in industrialized countries. If multilateral negotiations are not successful, the second best alternative will be pursuit of inclusion within preferential trading blocs or customs unions.

For macroeconomic and sectoral economic policies to be successful, five necessary conditions must exist: (1) a flexible and realistic exchange rate; (2) free trade in inputs and outputs; (3) a competitive financial market; (3) competitive primary input markets; and (5) a nondiscriminatory regulatory and domestic tax regime (Rhee 1985). If political and structural rigidities prevent quick elimination of existing distortions, second best or differential compensatory tax/subsidy policies may be needed in the transition phase. The operational objectives would then be to (1) guarantee a realistic exchange rate for exporters including compensation for an overvalued exchange rate, (2) provide free trade status for export production activities through a duty drawback scheme, (3) guarantee automatic access to working capital for exporters at interest rates consistent with those in other sectors, and (4) guarantee that the actual prices of inputs for export activities are equal to their shadow price (Rhee 1985). Success in achieving these stated operational conditions, however, is closely associated with institutional development and strengthening. The executing agencies (Central Bank, state and commercial banks, trade associations, Ministries of Finance, Trade and Industry, Planning, Agriculture, and other facilitative and regulatory bodies) determine the speed and thoroughness with which the policies can be implemented. Consequently, administrative capacity and adequate budgeting become important concerns.

In summary, export promotion requires a clear assessment of a nation's comparative advantage, sound economic and legal policies, and adequate institutional support and effective coordination. The next sections describe and evaluate El Salvador's legal, institutional, and trade finance frameworks.

12

4.2 Legal Framework for Export and Inversion Incentives

In El Salvador, fiscal incentives have been approved and granted to exporters with the justification of negating some of the antiexport bias in the economy. Authorities have also sought to stimulate direct foreign investment, since local domestic savings are low, by assuring easy repatriation of profits, minimizing the risk of expropriation of tangible assets, and safeguarding intellectual property rights.

The five fundamental laws that govern trade and investment incentives are: (1) Law for the Reactivation of Exports passed on March 15, 1990 (Legislative Decree 460); Free Trade Zone Law adopted on March 27, 1990 (Legislative Decree 461); Law for the Promotion and Guarantee of Foreign Investment passed on April 28, 1988 (Legislative Decree 960); the Law for the Promotion and Protection of Intellectual Property approved in mid July 1993 (Legislative Decree 604), and Reintegration of Value Added Taxes (VAT) for Exporters passed July 31, 1992 (Decree 296). The main points of each law are summarized in Table 4.1. From the perspective of national exporters the two most important laws are the Reactivation Law, which replaced the 1986 Export Promotion Law, and the Reintegration of the VAT Law.

The main difference between the old export promotion framework and the present one is ideological. The old regime had a "dirigiste tone" and sought to explicitly promote labor-intensive industries, nontraditionals over traditionals, and to force firms to use local materials whenever possible, offering greater tax incentives or subjecting exporters to the discretion of review bodies. The new regime accepts to a greater degree the notion of policy neutrality. All exporters enjoy the same benefits and are strongly encouraged to use the least-cost combination of inputs. Technical efficiency, in short, is the primary goal, and employment generation and value-added local content are secondary and tertiary. Market forces and the quality of entrepreneurship play a larger role in determining export composition and direction of trade.

Another difference was that the old regime created a large bureaucratic structure to administer the differential incentives. The result was less than satisfactory. Transaction costs were extremely high and discretionary power too large. The new regime tries to minimize the public sector administrative cost but complaints are still common about the slowness of incentive disbursements, the high cost of record documentation, and the multiplicity of regulatory actors.

From the perspective of foreign investors, the important laws are the Free Trade Zones, Guarantee of Foreign Investment, and Intellectual Property Rights. The Free Trade Zone has remained essentially unchanged from the 1974 Export Promotion Law, which created free trade zones. The most significant change has been allowing for private individuals and corporations to develop and administer zones. Before, only the state had such rights. The Guarantee of Foreign Investment and the Intellectual Property Rights Laws have no predecessors and serve to better define the property rights regime. Because they are recent, the effectiveness of enforcement, especially patents, has not been tested. These two laws are emerging as preconditions for attracting foreign investment in a global marketplace where out-sourcing is becoming more and more common.

Table 4.1. Synopsis of Trade and Investment Laws

1. Reactivation of Exports (Decree 460)
   - Six percent (8% in original decree) duty drawback on fob export value, payable within 45 days of submission of appropriate documents.
   - Eligible are all exporters and trading companies except maquiladoras (drawback limited to local fob value added) and traditional product exporters.
   - Designed to compensate exporters for anti-export bias.
2. Law on Value-Added Tax and Transfer of Assets (Decree 296)
   - Allowance for the return of VAT paid on inputs used in final export product.
   - Exempts final export sale from VAT.
   - Eligible are all exporters who present supporting documentation and who are current on all taxes.
   - Designed to prevent local taxation of goods bound for a foreign market, increasing competitiveness of Salvadoran exports.
   - Return is supposed to occur every 3 months, and tax credit certificates applicable to payment of other taxes will be issued to simplify the process.
3. Free Trade Zones (Decree 461)
   - Exemption from all tariff duties for import of equipment, tools, spare parts, raw materials, and intermediate goods used in export production process.
   - Duty-free admission of semifinished materials for re-export for up to 18 months.
   - Eligible are all legal and corporate and sole proprietorship resident exporters in a free trade zone.
4. Investment Guarantee Law (Decree 960)
   - Unrestricted repatriation of all profits from an investment in primary or secondary sector and up to 50 percent of profits from an investment in commercial or service sectors.
   - Full repatriation of funds originating from the full or partial liquidation of a business in proportion to the amount of foreign capital participation.
   - Right to domestic financing, opening of accounts at commercial banks, and ownership of land and other assets.
   - Eligible are all foreign investors duly registered with the Central Bank, Ministry of Economy, and Ministry of Finance.
   - Designed to guarantee profit repatriation, clarify property rights of foreign investors, and attract direct foreign investment.
5. Intellectual Property Rights (Decree 604)
   - Protects artistic, literary, scientific, audiovisual works and architectural designs.
   - Eligible are all registered copyright holders.
   - Designed to improve the business climate, comply with multilateral movement for respect of patents, and attract investors who use sophisticated technologies.

Source: Ministerio de Hacienda, Diario Oficial Tomo No. 317; Arriagada Stuver. 1992.

74

4.3 Institutional Support Framework

To administer the fiscal incentives, enforce the various trade and investment laws, collect statistics, provide technical assistance and market information, and publicize the attractiveness of the country as an investment site, a host of public and private institutions have evolved in El Salvador. In theory, in a well-functioning market economy, the public sector should provide only public goods, while the private sector should focus on production, marketing, and financing of goods and services. In other words, the government should administer the relevant rules and laws, build physical infrastructure, maintain currency convertibility and stability, represent the trade interests of the country in international forums and in negotiations, collect customs duties, and safeguard the general populace and productive base from the import of unsafe products and diseases. However, in practice there are incomplete markets, market failures, and externalities that create added scope for government action. Thus, it is common for governments to take actions to minimize information externalities such as compiling and disseminating data on market and investment opportunities and establishing standards and grades for certifying the quality of export products. In El Salvador, public sector entities have had an extended role, but their failure to provide timely and reliable services has encouraged private groups to fill the void. The result has been duplication of efforts and services, institutional rivalry and competition, a general lack of policy coherence, and the recurrent question of financial sustainability.

A list of the institutional actors and their missions is provided in Table 4.2. As can been seen in the table there are three broad areas of action: (1) administration, involving registering of investments and goods and disbursement of fiscal incentives; (2) technical assistance, involving the feasibility studies and project development; and (3) information collection/ dissemination and publicity. The first area is the clear prerogative of the public sector but in the latter two areas there is considerable overlap. In reality, the two main private entities, COEXPORT and FUSADES, have supplanted the Ministry of Economy in the provision of technical assistance and information services.

For example, the Ministry of Economy, due to budget constraints, has allowed its Information Center to lapse and become obsolete. In contrast, the price and quantity information in COEXPORT and FUSADES databases are two-four weeks old. Neither COEXPORT nor FUSADES are satisfied with the quality of their databases and would like to have more current information, but lack of an Internet account and the high cost of access to electronic databases constrain service. Nonetheless, private business people claim that these are the two best services available in the country. In the case of exporter and investor assistance, FUSADES/PRIDEX has been much more energetic than the Ministry of Economy, paying for feasibility studies, making cold calls to potential investors from two offices in the United States, and arranging meetings and tours of relevant points of interest for potential investors.

Another main difference is that the private groups are able to attract and retain better-trained and more highly motivated individuals who provide better services. The main problems with the private groups are financial vulnerability and limited coverage. COEXPORT is supported by member fees and has had a relatively constant budget (C2 million) in recent years

Table 4.2 Public and Private Institutions Providing Support to the Export Sector

Ministry of Economy

1. Export and Investment Promotion Directorate
   - Commercial Information Center maintains database on trade flows, prices, supply/demand, pertinent quality and safety standards for foreign markets and a list of foreign exporters/importers.
   - Promotion of Investments and Transfer of Capital and Technology assists national and foreign investors to register.
   - Division of Fiscal Incentives approves eligibility for fiscal incentives in Export Reactivation and Free Trade Zone Laws.
   - Export Support analyzes transport problems, helps nationals participate in international fairs and expositions, and administers donor projects related to trade improvement.
2. Free Trade Zone Directorate applies the Free Trade Zone Law and administers FTZ San Bartolo.
3. Economic Integration Directorate evaluates and analyzes all issues related to the Central American Common Market.
4. International Negotiations Directorate analyzes international trade issues and conducts negotiations on behalf of the government.

Central Bank

1. Export Transactions Center (CENTREX) is a one-stop-shop for registering trade transactions, issuing certificates of origin and phytosanitary quality, and issuing permits required by other public institutions.
2. Department of International Finance monitors and analyzes external accounts.
3. Department of Foreign Trade monitors trade flows, international prices, and other trade issues.

Ministry of Finance

1. Internal Revenue Service approves and processes 6 percent duty drawback and return of VAT paid by exporters.
2. Customs Service inspects merchandise crossing frontiers and collects appropriate tariffs and fees.

Ministry of Agriculture

Unidad de Sanidad Vegetal y Animal conducts inspections of food, plants, and live animals entering the country, issues certificates of phytosanitary quality, and monitors the import of agricultural chemicals.

Port Authority

Operates and maintains loading and storage facilities at seaports of Acajutla and Cutuco and administers the International Airport at Comalapa.

16

Table 4.2 Public and Private Institutions Providing Support to the Export Sector

(continued)

COEXPORT

1. Assists exporters through provision of a trade database.
   Matches foreign importers with domestic exporters.
   Sponsors workshops and seminars on trade issues and changes in trade and incentive laws.
4. Helps exporters to attend international fairs and expositions.
5. Lobbies the government on behalf of private export businesses.

FUSADES

1. PRIDEX
   - Focuses on promoting direct investment through international fair attendance, cold calls to foreign businesses and mailings.
   - Assists domestic exporters in project preparation, organizing and funding trips, inviting importers to visit local plants, and contracting consultants to help local exporters adapt their products to foreign preferences.
2. DIVAGRO
   - Conducts diagnostic and feasibility studies for the introduction of nontraditional crops on farms.
   - Prepares technical assistance in preparation of soils, selection of seed, and cultivation practices.
   - Manages two demonstration farms.
   - Maintains an agricultural trade database.
   - Presents seminars and workshops.
   - Helps farmers to attend international fairs.
   - Acts as an intermediary for agroindustries and contract farmers.

Sources: Arriagada Stuven 1992, interview notes.

despite the increasing demand for more services. FUSADES has been supported by USAID since 1982-83, although USAID wants to wean the institution from its almost exclusive dependence on concessional external funds. Due to the tenuous financial situation of both private institutions, the intense pressure to produce positive results, and the high risk in nontraditional agricultural production, extension of services to medium-scale producers is unlikely in the near future. At present an agriculture diversification program, DIVAGRO, has assisted about 4,300 mainly large-size farmers and cooperatives in its seven years of existence.

The provision of services by the public sector has been uneven in quality and adequacy. The Central Bank has generally performed well especially since the creation of CENTREX and the movement toward a unified exchange rate. Exporters are generally serviced within one day. Before CENTREX, the exporter had to visit numerous, dispersed agencies, and spent considerable time securing the necessary permits and registering the transaction. The Port Authority has also performed well despite serious budget cuts. The seaports and airports are reported to be well-managed and well-maintained. The most common complaint is the lack of more warehouses, more docking space, and more modern loading equipment. These capital improvements are hostage to tight budgets. In the midst of budget austerity, the capital projects are more likely to be delayed or canceled than are recurrent salary and operational expenditures.

The weaker providers of exporter services, however, have been Customs, Ministry of Economy, Internal Revenue Service, and Ministry of Agriculture's Food and Drug Service. Transport services and business persons contacted reported that corruption is a serious problem with customs officials and that their rent-seeking behavior significantly increases transaction costs. The leadership of the agency denied any widespread problem and said that vigorous efforts were under way to remedy the problem. The Ministry of Economy, the Internal Revenue Service, and the Ministry of Agriculture all fail to provide timely service. The reasons given for the poor service is lack of sufficient financial, human, and material resources. Private sector operators attribute the failure in part to lack of budget but also cite the excessive number of sign-offs needed to approve a transaction, convoluted rules that confuse both the staff and the exporter, and low personnel morale.

The Ministry of Agriculture's Food and Drug Service is aware of the problem and is seeking a loan from the European Economic Community (EEC) that would allow the ministry to build and furnish a network of laboratories across the country. At present, only FUSADES has a functioning quality-control laboratory. The absence of a scientific infrastructure is a leading reason why Salvadoran food and agricultural products entering the United States are prone to high rates of rejection. According to U.S. Food and Drug Administration reports, El Salvador was second in fiscal year 1991 to the Dominican Republic in the total number of detentions, 126 versus 282, but first in the value of detentions ($4.4 million). In fiscal 1992, the number of rejections rose to 172 but the value dropped to $2 million (FDA 1993). Those substantial economic losses hurt Salvadoran exporters, make financiers leery, and lower the reputation of Salvadoran products in the international market place.

78

The next sections describe and evaluate the steps in the export process and the procedures involved in qualifying for a fiscal incentive outside of a Free Trade Zone.[2]

4.3.1 Export Procedures

The steps required to export are summarized in Table 4.3. The procedure is very straightforward and with the advent of CENTREX, a "one-stop-shop," the amount of time required has been substantially reduced. Prior to 1987, the year CENTREX was founded, an average exporter required at least one week to register an export and obtain the most commonly required certificates. Now the average exporter can accomplish the same within one day. The streamlined system may explain, in part, the rising number of new exporters in recent years. In 1990 there were 597 new exporters, in 1991, 514, and in 1992, 339 (CENTREX).

The two main weaknesses in CENTREX are the absence of an authorizing law and the need to further train its staff and upgrade its office equipment and computers. CENTREX was originally part of the Ministry of Foreign Trade, but since this ministry was abolished, and since the new Export Reactivation Law of 1990 superseded the Export Law of 1986, no clear provisions have been stipulated concerning CENTREX. The entity continues to exist only at the bequest of the chief executive and the president of the Central Bank and as a result its staffing and budgeting are completely discretionary.

4.3.2 Direct Investment Procedures

A foreign investor seeking to invest in the country does not face major bureaucratic barriers in securing the guarantees afforded by the investment. The procedure, as summarized in Table 4.4, is straightforward. What is more problematic is the long wait (typically 20-30 days) required to complete the transaction. Ideally, the wait should be less than one week. Nonetheless, even more difficult is the acquisition of information and registering the foreign-owned venture locally.

There is a clear need for better coordination among the various units within the government that have jurisdiction in registering a business. At present there are 16 units, with 276 staff. For the typical foreign investor, a total of 16 separate applications must be made, at least 32 visits, and it is estimated that 1,005 public servant days must be expended to process a single transaction (MIPLAN-GAES 1993). A proposal to set up a one-stop-shop for foreign and national investors is circulating in the ministry and is likely to be adopted toward the end of the Cristiani administration or at the start of the new administration in June 1994. The new entity would centralize all the services and transactions needed to start a new business venture.

---

[2] Very few agribusinesses operate in Free Trade Zones. According to information provided by FUSADES\Pridex only ___ out of ___ firms operating in FTZ's as of July 1993 are agribusinesses.

19

Table 4.3 Export Procedures

1. Register as an exporter.
   a. CENTREX is agency in charge.
   b. Documents needed:
      - Identity card
      - Articles of Incorporation
      - Signature Authorization Card
      - Registration with appropriate trade association or governmental body if the product is coffee, sugar, meat, fish, agrochemicals, feed, or veterinary medicine.
   c. All exporters are required to register as a matter of formality. Data are kept in log form and not computerized.
   d. Average time needed is five minutes.

2. Register export sale.
   a. Annex sales contract.
      - CENTREX is agency in charge.
      - Facilitates recordkeeping by BCR because products and values are classified into various categories.
      - Time needed is less than ten minutes.
   b. Annex special permits if product is controlled.
      - Delegates of the Ministry of Economy and Ministry of Agriculture who are located in CENTREX are in charge.
      - As of July 1993, GOES has a list of 19 controlled export items and 5 items prohibited from export.

3. Obtain certificates required by importing country.
   a. Certificate of Origin
      - Delegates of Ministry of Economy who are located in CENTREX are in charge.
      - Preferential trading arrangements, such as CBI, GSP, and MFA, have provisions governing local content and import eligibility. CENTREX is responsible for assuring that exporters are not violating these statutes.
   b. Sanitary Certificates
      - Delegates of Ministry of Agriculture who are located in CENTREX are in charge.
      - Most industrialized countries have safety standards for imported items. Products without necessary documents are not permitted entry. CENTREX is resopnsible for informing the exporter of import requirements in the destination country.

Source: CENTREX.

Table 4.4 Direct Investment Procedures

1. Register as a Foreign Investor.
   a. Documents Needed:
      - Proof of citizenship
      - Articles of incorporation
      - Recent balance sheets
      - Proof of transfer of foreign currency to local bank account
   b. Agencies in charge:
      - Office for the Promotion of Investments and Transfer of Capital and Technology in the Ministry of Economy
      - Banco Central de Reserva Department of Currency
   c. All foreign investors who want to enjoy the guarantees afforded by the Investment Law, namely full repatriation rights, must register.
   d. Time needed is from 2 to 30 days; greatest delay is in obtaining signatures of high-ranking officials.
2. Register as a Local Firm:
   a. Must present proof of appropriate amount of capital if a corporation (minimum C100,000 if foreign partners involved)
   b. Agencies in charge are Ministry of Economy Commercial Registry, Finance Ministry, Ministry of Labor, and 12 other offices.
   c. This procedure is usually initiated simultaneously with foreign investment registry.
   d. Main benefit of registration is that it affords the firm full benefits of the Commercial Code, particularly limited liability exposure.
   e. Time needed is from one to three years.

Source: Ministry of Economy

The new unit would, at a single location:

- Provide information on investment opportunities
- Register foreign investors
- Issue resident credentials to foreign investors
- Incorporate national businesses and subsidiaries of foreign corporations
- Record businesses in the Commercial Registry
- Grant tax and employer identification numbers
- Register patents, copyrights, and licensing arrangements
- Authorize the disbursement of fiscal incentives (MIPLAN-GAES June 1993)

4.3.3 Procedures to Claim a Fiscal Incentive

The procedures to claim a fiscal incentive are extremely cumbersome. As shown in Table 4.5, it takes more than three months (worst case scenario) to receive a duty drawback and up to six months for the VAT return. The lengthy delays are caused by a combination of submission of illegible and/or false documents, lack of sufficient resources, and excessive bureaucracy.

The theoretical justification for incentives is to reimburse exporters for the duty they paid on imported inputs so that they would not be disadvantaged vis-a-vis foreign competitors. However, no detailed studies exist on the magnitude of anti-export bias by sector or cost-benefit evaluations of the fiscal incentives, given the administrative problems in processing claims. A more sophisticated system would calculate import input coefficients for each industry and annually update the figures. In this way, benefits would be distributed according to true need, although the administrative requirements would be more intense. An alternative might be a duty-VAT remission scheme. This would relieve the cash flow problems of the Treasury Ministry, but it may or may not imply less documentation and auditing power. In the case of the VAT return, the motivation is to avoid "exporting" domestic taxes.

4.4 Evaluation of the Effectiveness of Export and Investment Incentives

Since the duty drawback incentive was implemented (September 1990), the number of applications for duty drawbacks has increased remarkably as more exporters become aware of the program and participated (Table 4.6). Concomitant with the increased number of applications has been a decline in the average return. More interesting, however, is the decrease in the ratio of amount returned to total nontraditional export value. That is, nontraditional exports increased at a much higher rate than the amount returned for the period 1991-1992, suggesting that the fiscal incentive may not be significant. The lack of monthly, nontraditional export values makes a more rigorous analysis impossible at this time.

Table 4.5 Procedures for Claiming Fiscal Incentives (6% Duty Drawback and Return of Value-Added Tax)

<u>6% Duty Drawback</u>

1. Determine eligibility
   a. Documents needed
      - Application form
      - Export sales invoice
      - Foreign currency entry declaration form
      - Proof of foreign currency deposit
      - Export registration record from CENTREX

Table 4.5 Procedures for Claiming Fiscal Incentives (6% Duty Drawback and Return of Value-Added Tax)

continued

b. Agency in charge is Ministry of Economy
c. Most delays are due to illegible records and the numerous signatures required.
d. Average time needed is six weeks.

2. Obtain approval and payment order from Ministry of Finance
   a. Agency in charge is Ministry of Finance Internal Revenue Service.
   b. Ministry reviews the documents and checks tax status.
   c. If presenter is delinquent in taxes, debits are made.
   d. Most common problems are false or altered invoices.
   e. Time needed is 10 to 40 days.
3. Obtain approval of the Controller's Office
   a. Documents needed are payment order and above supporting documents.
   b. Controller's Office reviews documents and issues a check for payment.
   c. If amount is greater than C301,000, additional signatures are required.
   d. Average time needed is 15 days.
4. Receive disbursement of funds or tax compensation certificate
   a. Ministry of Finance Internal Revenue Service disburses the funds or certificates.
   b. Time needed is from one to seven days.

Return of Value-Added Tax

1. Establish proof of export
   a. Documents needed
      - Application form detailing VAT paid on inputs used in export product
      - Export sales invoices
      - Export record from CENTREX
   b. Ministry of Finance Internal Revenue Service reviews documents for authenticity.
   c. Time needed is up to six months.
2. Verify amount of return due
   a. Exporter makes accounting records available to auditor.
   b. Agency in charge is Ministry of Finance Internal Revenue Service.
   c. This step is very time-consuming because the office is understaffed and many businesses do not keep orderly records.
3. Receive payment for return
   a. If the amount is less than C100,000, a check is issued by the Internal Revenue Service.
   b. If the amount is more than C100,000, a payment order is submitted to the Controller's Office.
   c. Beginning in June 1993, compensatory tax certificates will be issued.

Source: Ministry of Finance

Table 4.6. Number and Amount of Duty Drawback Payments					
Year	Number of Applications	Amount Returned (colones)	Average Amount Returned (colones)	Non-traditional Exports /1 (colones)	Drawback as Percent of NT Exports
Sept.-Dec. 1990-92	65	5,301,135.44	81,555.93		
1991	840	67,094,741.97	79,874.69	2,440,571,000	2.7%
1992	1,345	69,543,328.04	51,705.07	3,328,698,000	2.1%
To June 1993	925	29,393,028.09	31,776.25		
TOTAL	3,175	171,332,233.50	53,962.91		

Notes: /1 Excludes coffee, sugar, cotton.
/2 The Export Reactivation Law passed in March 1990 and the duty drawback provision was not implemented until September.

Source: Finance Ministry

Distribution of the benefits of incentives also tend to be very concentrated. As shown in Figure 4.1, textile firms in 1992 obtained more duty drawbacks (averaging 38%) for the ten-month period of available data than firms producing agricultural exports (29%) (Finance Ministry). Only a small number of exporters (141 firms) used the program from September 1990 to November 1992. COEXPORT, the exporters asso-ciation, reports a membership of 240 direct exporters in 1992 (Finance Ministry, COEXPORT Memoria de Labores, 1993). Thus, close to 60 percent of the more established exporters were covered by the program. According to CENTREX there are an estimated 1,400 exporters in the

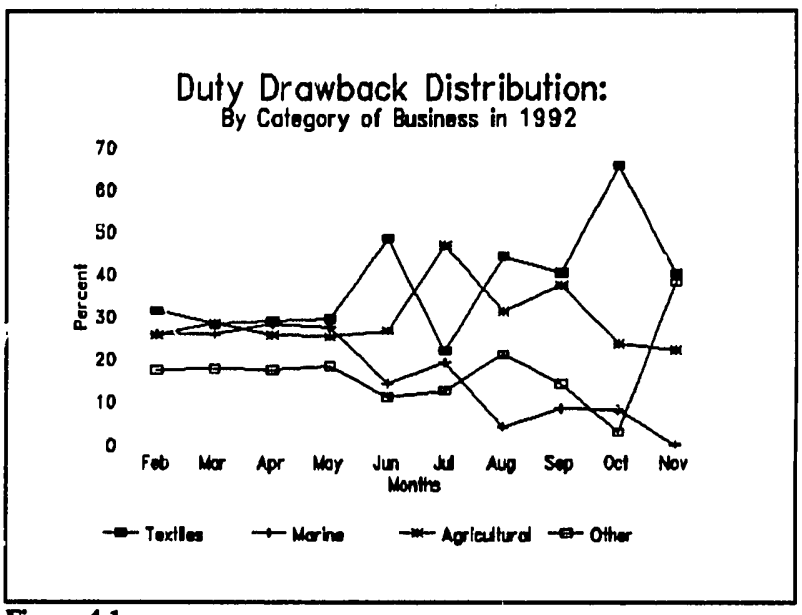


Figure 4.1

country; thus, the utilization rate is about 10 percent. Some of the leading agricultural exporters who used the program in 1992 were Sesame de El Salvador, S.A. de C.V.; Productos de Cafe, S.A.; Procesadora San Michelle, S.A; and Productos Alimenticios, S.A. de C.V. (Finance Ministry).

With regard to the VAT rebate, the Internal Revenue Service had processed only 8 percent (6 out of 75) of the applications as of June 1993. This extremely low figure has forced changes in the disbursement technique, and beginning in July, compensatory tax credit certificates are being issued. The two main problems with the administration of the VAT rebate is the lack of funds and the tedious nature of conducting audits.

Direct investments have increased over the 1990-91 period but it would be difficult to attribute the increase in any meaningful way to the promotion activities of the Ministry of Economy because the ministry has not been very active in this area. FUSADES/PRIDEX and FUSADES/DIVAGRO have been more successful generating investor interest in the country than has the public sector. According to reports by FUSADES/DIVARGO, the unit succeeded in generating C5.5 million of direct investment in agriculture in 1991 and C6.62 million in 1992.

The overall investment picture is unclear. From 1970 to 1979, direct investments and reinvestments of earnings averaged about $10.4 million per year. During the most tumultuous years of the civil conflict (1980-89), the figure dropped to $6.5 million. In 1990, the figure bottomed out at $1.6 million. In 1991, direct investments alone accounted for $10.1 million and, when combined with retained earnings and appreciation of assets, the figure is $30 million. In that year the principal source countries were the Bahamas (47%), the United States (34%), and Bermuda (14%) (Ministry of Economy). Food and agriculture represented 18 percent of the direct investments in 1991. More popular investment areas were oil refineries (39%) and commerce (28%) (Ministry of Economy). In 1992, direct investments fell appreciably, to $768,000, again with most investment aimed at commercial services; and the Cayman Islands, Panama, and the United States were the main source countries.

In summary, fiscal incentives play a role in stimulating exports but possibly not a determinative role. The main problem with fiscal incentives is poor administration. The qualification procedures are tedious and the process takes too long. Export and promotion services are weak and uneven. Public sector agencies are largely absent and the private entities face financial sustainability constraints.

4.5 Trade and Investment Financing

Access to working capital is problematic for medium and small businesses, as well as for large businesses engaged in nontraditional food and agricultural exports. Private banks tend to lend to larger, well-established firms with secure collateral for working capital and investment purposes. Collateral requirements are usually 110-120 percent of the value of the loan. Customers with 100-percent export businesses can receive loans in dollars but availability is limited and is considered a constraint on bank growth and profitability. According to Banco

Cuscatlán officials, 80 percent of pre-shipment export loans go to firms with more than C2 million in assets who concentrate in traditional agricultural and manufactured exports. Many of the export-oriented firms receiving financing are textile, clothing, and footwear producers. Nontraditional agricultural exports, with the exception of ornamental plants, are considered high risk due to perishability, poor quality control, underdeveloped marketing channels, and the risk of nonpayment by the importer. Other business persons interviewed expressed the view that most private banks have the same conservative orientation.

With regard to trade finance, letters of credit for exporters are not widely used due to a reluctance on the part of importers, who have superior bargaining power (especially in the case of new products), and a lack of strong relations between national banks and correspondent banks in the exterior. Banco Cuscatlán reports that only 5–10 percent of its exporters obtain letters of credit from importers. Similarly, bankers acceptances, the most sophisticated trade finance instrument, are not used. Domestic letters of credit, which were fundamental in the success of guaranteeing access to finance to indirect exporters in Korea, are also not used in El Salvador.[3] Most trade finance is conducted on a draft or "word of mouth basis." When the exporter delivers a product, a draft order which is a request for payment by a bank is presented and the exporter simply waits for payment, with little guarantee of compliance.

FIDEX, a finance company established two years ago, specializes in financing medium and small export businesses. Because of a 30-percent delinquency for agricultural projects and particularly bad experiences in aquaculture, the organization is shifting its $20-million portfolio toward industrial projects. To qualify for a loan requires 110-percent collateral value and solid feasibility studies. Agricultural extension agents have criticized all banks, but in particular FIDEX because of its stated mission to promote export development, for undermining diversification efforts. Although investors in nontraditional activities may receive assistance in prefeasibility studies, marketing research, and production techniques, without access to financing they are paralyzed.

The focus of the Central Reserve Bank to date has been to stimulating medium- and long-term investment in productive capacity. The conventional wisdom is that the manufacturing stock of El Salvador needs to be rapidly modernized and converted in order to increase price competitiveness and quality. In August 1990, the Central Bank established a C1.6-billion Fund for Investment with the help of USAID and the Inter-American Development Bank. Since then it has been able to lend C1.1 billion in six lines (Industry and Agroindustry, Construction, Agriculture, Social Development, Services, and Microenterprise) through intermediaries in the reserve system for medium- and long-term projects. The interest rate is flexible, with the base being the 180-day certificate of deposit rate for the previous month plus whatever margin the

[3] A domestic letter of credit is opened on a first letter of credit between a final exporter and foreign buyer. The bank uses the first letter of credit to guarantee a credit directed to an input supplier of the final expo. . This instrument widens access to formal credit for medium and small entrepreneurs. They are able to obtain credit on much more favorable terms than in the informal market and avoid the risk of late or nonpayment by the final exporter under an accounts receivable system.

intermediary establishes. To date most of the funds have been directed to industrial and agroindustrial projects. The main complaint about the Fund for Investment is that the application process is excessively long (6–10 months).

In summary, access to credit for both pre-shipment and post-shipment needs is problematic. Conservative banking practices and the underdevelopment of risk management techniques and government assistance can thwart the emerging export drive.

4.6 Conclusion and Recommendations

4.6.1 Findings

Salvadoran public sector authorities have not pursued effective export promotion policies. While certain elements of an auspicious macroeconomic environment exist, administrative failures, the lack of a clear strategic vision and knowledge about the country's comparative advantage, and the ineffective coordination of government bodies, universities, private sector entities, and labor unions, undermine the positive strides made to date in the macroeconomic arena.

If the operational goals of an effective export promotion policy include (1) a flexible, realistic exchange rate, (2) free trade in inputs and outputs, (3) a competitive financial market, or at the very least guaranteed access for all exporters to working capital, (4) a competitive primary input market, and (5) a nondiscriminatory tax and regulatory environment, then El Salvador is lacking.

As discussed in chapter 2, exporters suffer from an overvalued exchange rate and there is no inclination within the Central Bank to take corrective action.

In theory, the 6-percent duty drawback system for exporters outside the Free Trade Zones is roughly equivalent to a 5-percent tariff rate on most capital and intermediate goods. In practice, however, the limited number of firms applying for the drawback and the long delays in disbursement minimize the fiscal incentive.

Financial markets are not accessible to many medium, small, and indirect exporters because of high collateral requirements and conservative banking practices. At present only a small segment of the business community enjoys access, which contentrates activities and funding in those industries that have access. Without a long-term perspective and support from the public sector to diminish the high risks involved in nontraditional exports through guarantee funds and export credit insurance, the initial improvements shown to date may not continue. More innovative and sophisticated trade financial instruments are needed to reduce the risks for exporters and bankers.

While the tax system has been revised, with distortionary export and stamp taxes eliminated and aggressive collection efforts undertaken, the delays in implementing the return

87

of the VAT to exporters counteracts the motivation behind the incentive, which was to avoid export taxes.

On the institutional front, only CENTREX, COEXPORT, and FUSADES seem to be functioning reasonably well. The weak administrative services provided by the Ministry of Economy, Internal Revenue Service, Customs, and the Food and Drug Service discourage new investors and increase the cost of doing business for all exporters. The most glaring economic losses occur due to corruption of customs agents and the lack of adequate facilities to test the quality of exportable food and agricultural products. The corruption increases transportation costs and the lack of quality control leads to a high incidence of rejection in destination markets.

Probably the most troubling aspect is the lack of a clear national export strategy and coordination among the significant actors in the economy. A committee called FOMEX broadly representative of economic interests in the country, is attempting to address this need.

4.6.2 Recommendations

- Centralize all investment registration activities in one office.

- Conduct a cost-benefit study of the current duty drawback system and, based on the findings, decide whether to abolish it or to modity it by instituting a system that is less difficult to administer. Strengthen the Internal Revenue Service so that it can quickly disburse VAT compensatory certificates.

- Change the leadership in Customs and mount a strong anticorruption campaign. One incentive may include paying Customs agents more than civil servants of a comparable grade.

- Develop and strengthen quality control capabilities in the Ministry of Agriculture, universities, and FUSADES.

- Establish an Export Guarantee Fund, study the feasibility of an Export Credit Fund, and expose bankers to innovative trade finance instruments such as domestic letters of credit and bankers acceptances. Without wider access to credit and a long-term view toward export promotion, the entire campaign may flounder for lack of finance.

- Strengthen capital markets so that they can serve as an alternative source of financing (equity), thus eliminating sole reliance on debt financing from banks.

5. A PROGRAM OF INFRASTRUCTURE INVESTMENT

In theory, structural adjustment measures should boost investment, particularly in the tradable goods sector. That increase in investment can provide a connection between adjustment, growth, and the external balance of trade that would ensure the sustainability of the adjustment effort. In El Salvador, however, as noted earlier, the investment response has been disappointingly weak, especially in agriculture, a problem that raises the cost of adjustment in terms of employment, economic growth, and development. Given the pivotal role of increased investment in the recovery of sustained growth in agriculture, El Salvador will need to institute further policy reforms in the short to medium term to restore adequate levels of investment.

To sustain investment for a desirable rate of growth, El Salvador must increase its rate of public and private savings. The liberalization effort, which has allowed real interest rates to rebound, will have a positive impact on measured private savings. Moreover, reduction in the budget deficit will raise public saving, and the reduced distortions in resource allocation will raise the baseline level of both El Salvador's efficiency and economic growth in the long term. A major quantitative study is needed to verify usage and costs of the various modes of transport available. This study should also estimate the cost of improvements needed to increase transport capacity and lower user costs.

5.1 Assessment of Constraints and Infrastructural Problems

El Salvador's agricultural sector cannot compete with external sources without adequate infrastructure. Investment in infrastructure increases productivity, reduces cost, and improves marketing efficiency.

The main infrastructural constraints to increased exports are:

- Road transport costs are high due to the poor condition of the road network, which results from the low level of investment in rehabilitation, construction, and maintenance.

- Unsafe and unreliable rail facilities make markets less accessible to producers.

- Marine ports have a limited capacity to handle cargo. The Port of Acajutla requires a series of infrastructual improvements; the electrical system has been affected by the continuous voltage changes, and the railway line does not enter the dock areas.

- Air cargo transport costs are high, and there is insufficient capacity in the frozen and refrigerated cargo facilities.

- Administrative barriers and customs delays increase transportation costs, bureaucratic procedures are slow, large bribes are needed to cross the border with Guatemala.

- The state-run telephone system is poor, and both the time and cost of hooking up new lines are high. Only an estimated 40 percent of phone calls going to or coming from the United States connect. It takes years to get a phone installed where there are no current lines. Businesses hire individuals solely to dial outgoing phone calls for other employees.

- The electrical system, although improving, still suffers from years of low investment and maintenance and related damage. Approximately 17 percent of electricity is lost during transmission due to poor equipment and lines.

- Marketing inefficiencies in storage activities due to an inadequate and deteriorated physical infrastructure increase merchandise insecurity and costs of storage.

- Policy analysis capabilities, development management knowledge, and managerial skills are lacking, and presents serious obstacles to effective implementation of policy change in agriculture, trade, and investment.

In sum, the modes of transportation most frequently used by exporters are: the road network (71%), airports (18%), and domestic marine ports of Acajutla and Cutuco (11%) (López). The infrastructure sector lacks both the proper funding[38] and sufficient planning to set its overall objectives and priorities. Moreover, resources for both routine and major maintenance needs are scarce, and as a result, maintenance is usually deferred. Currently, 45 percent of investment in the transportation sector depends on international financing (Tech International et al.).

5.2 The Investment Program and Strengthening of Institutions

In El Salvador, the decline in investment resulted not only from reduced public investment (because the government was under pressure to reduce the public sector deficit), but also from reduced private investment, caused in part by uncertainty at the start of the adjustment program and structural reforms. The reductions in public investment in infrastructure and human capital seriously jeopardized the resumption of private investment. Experience shows that the expansion of efficient public investment enhances the private sector's supply response to the reformed incentive structure by increasing the credibility of the adjustment program and thus contributing to the expansion of private investment.

[38] Public resource allocation to the infrastructure sector (Obras Públicas) has averaged only about 11.8% of GDP for the last 23 years. It has decreased in the last three years, and in 1992 it reached only 7.8% of GDP.

A decline in investment is worrisome because higher growth in El Salvador requires an increase in investment above the levels of the 1980s. In the next four to five years, the public investment target should be between 15 and 20 percent of GDP and the private investment target between 12 and 15 percent of GDP.

Resources for investment are scarce, and it is therefore vital to have increases in the efficiency of labor and capital. Improving the efficiency of resource allocation and use by the public sector includes support for rationalizing public sector investment, strengthening the efficiency of public sector and parastatal enterprises, and a rationalization of public sector programs.

Further, because more efficient investment has a higher rate of return and encourages investment in El Salvador's economy (rather than investments in other countries), the maintenance and consistency of the current nondistortionary macroeconomic policies are important. To increase the production capacity of the agricultural sector and to ensure sustainability, the team is proposing an investment strategy that covers the following selected areas.

Investment in Irrigation. In the short to medium term, increased investment in the rehabilitation of irrigation systems will substantially increase production and exports of nontraditional agricultural products. The irrigation investments to support agricultural development should include actions to privatize the system and to improve delivery of irrigation waters to its users. Some realistic projects include Project Lempa-Acahuapa to distribute adequately the parcels of land and improve its infrastructure, rehabilitation of the Zapotitán and Atiocoyo irrigation project, and soil management and flood control of the Rio Grande de San Miguel.

Investment in Capacity Building and Institutions. In the short to medium term, investment should be directed toward the strengthening of the ministries of Agriculture, Economy, and Finance, in particular, in the areas of: policy analysis and implementation, data management, dissemination of information, tax management, and the promotion of transfer of capital and foreign investment.

Also, increased investment is needed to support an institutional coordination arrangement or plan that promotes diversification in agriculture and agroprocessing and data management. The arrangement should include FUSADES, COEXPORT, FOMEX, and the ministries of Economy and Agriculture. The objective would be to consolidate an export strategy. At the beginning, the task would entail revision of focus, capacity, and the degree of coordination in the Ministry of Economy and FUSADES (via PRIDEX) to promote investment and exports. Specific areas that could be covered are analysis and development of new markets, identification of export niches, improvement of processes and production technologies, quality control, and business strategy planning.

Investment in Research and Extension Services. Increased investment in agricultural research and extension is vital. Policy in this area should be centralized and well coordinated. A scheme and a coordination plan involving MAG, FUSADES, CLUSA, and CENTA should be developed to make CENTA self-reliant. This is an area where international expertise and international funding can be particularly helpful, provided that the appropriate priorities and programs are well defined.

Investment in a Market Information System. The creation of a market information system covering both domestic and international markets, that provides timely price data, names of potential buyers or sellers, consumer tastes and preferences in the importing countries, and information on trade barriers and import procedures is vital to El Salvador's competitiveness in the global market. Such an information system should be quasi-private, but have sufficiently low costs so that access is available to all current or potential exporters.

0 7

6. IMPLICATIONS OF ECONOMIC INTEGRATION FOR SALVADORAN AGRICULTURE

The emergence of El Salvador from years of civil war and economic stagnation has renewed interest in a more open economy and in economic integration with other countries. This chapter contains a brief overview of the principles of economic integration, and continues with a description and discussion of the Central American Common Market (CACM) and the North American Free Trade Agreement (NAFTA). The overview is followed by discussions of El Salvador's relationship to these agreements and to the General Agreements on Tariffs and Trade (GATT), concentrating on the effects of these agreements on the Salvadoran agricultural sector. The chapter concludes with a discussion of the opportunities and challenges for El Salvador under a more liberalized trade regime.

6.1 Overview of Economic Integration

Economic integration is a process designed to abolish discrimination between the economies of different nations (Balassa 1961). In the past decade, a wave of economic integration has swept the globe, manifesting itself in many bilateral and regional trade liberalization agreements.

6.1.1 Types of Integration

The types of economic integration represent varying degrees of integration. At the first level are **preferential trading arrangements**, where one country gives some type of preference to the exports of another country. These preferences are often, but not always, reciprocated. For example the U.S. Caribbean Basin Initiative (CBI) provides eligible Caribbean and Central American countries with duty-free access for most exports, but the recipient countries are not required to offer the same concessions to the United States. El Salvador participates in the CBI.

The next level of integration, a **free trade area**, is characterized by an abolition of tariffs and other quantitative restrictions on exports between the participating countries. However, each country retains its own trade restrictions with respect to nonparticipating countries. The North American Free Trade Agreement between the United States, Canada, and Mexico is an example of a free trade area.

A **customs union** is essentially a free trade area with the addition of a common trade policy with respect to imports from nonmember countries. The Caribbean Common Market, which is better categorized as a customs union, has such a common external tariff and trade policy. A **common market**, such as the future status of the Southern Cone Common Market (Mercosur) has the characteristics of a customs union but, in addition, allows free movement of factors of production.

Finally, an **economic union** adds some degree of harmonization of national economic policies. The European Community is quickly moving toward such a union, with plans to coordinate both monetary and fiscal policies. Each of these forms of economic integration implies benefits to participating countries; however, these benefits vary depending upon the level of integration, in addition to other factors (Balassa 1961).

6.1.2 Benefits and Costs of Integration

The potential benefits from economic integration can be divided into two different categories: static gains and dynamic gains. The foremost are the static gains from trade, explained by the theory of comparative advantage. For example, as trade is opened between countries *A* and *B*, country *A* may import good *X* from country *B* if relative production costs are lower there, which allows country *A* to use more resources to produce more of good *Y*, where country *A* has the comparative advantage. In turn, country *B* would import more of this good *Y* from country *A*, allowing country *B* to use more resources in production of good *X*. These gains from trade are both in efficiency, with more production going to the lowest relative cost producer, and in welfare. However, gains in welfare are not necessarily equally distributed between or within countries.

These gains in efficiency and welfare, should foster economic growth. Another potential static gain from integration is increased bargaining power and reduced vulnerability when dealing with nonparticipant countries on both political and economic fronts. This gain is particularly relevant for smaller nations who band together. Finally, a domestic consideration is the reduction of risk because the trade policies among member countries are more transparent and less likely to change despite changing political authorities.

Perhaps most easily understood among the dynamic gains from integration are economies of scale. In very small firms, workers are likely to do several different tasks; however, when demand is sufficiently large, in a larger plant, workers can specialize and gain more skill, which increases productivity and lowers marginal costs (Balassa 1961).

Also, a small country may not have a large enough internal market to effectively absorb the high fixed costs associated with a complex or capital-intensive industry, such as steel production or new product development. However, when that fixed cost is spread among more buyers, then average cost may be low enough to make the venture viable. Export market expansion from economic integration can provide the growth in demand required to justify the increase in supply. These dynamic gains potentially can reach beyond the sphere of production and into scientific collaborations with a pooling of resources for research into products and processes important to the region. While economic integration should benefit participating countries, **certain costs** are also associated with the action.

- Negotiations for these agreements are often quite lengthy and expensive.

- If integrating countries pursue an import substitution strategy through higher external tariffs, the economic integration process may indeed cause higher costs for consumers and decrease efficiency of these targeted industries in member countries.

- Economic integration entails some restructuring of industries to fully exploit the competitive strengths of each country, leading to the downsizing or even elimination of some industries in countries where they are least efficient.

This economic restructuring implies a potential for significant interim unemployment and for abandonment of industrial facilities. However, as other industries are created or expand, the surplus of workers and equipment will be in part, if not completely, absorbed. This gain by other industries may not fully compensate the businesses involved in the losing industries. Therefore, policymakers should consider some sort of compensation scheme or special loan program for owners to convert plants to production of other products and retrain of workers.

6.1.3 Factors Affecting Success of Integration

One of the factors that affects the success of integration is geographic proximity. When transportation costs are lower, trade becomes more profitable. Also, countries within a region are more likely to have common customs and cultures, making accommodation of these tastes and preferences in product development and promotion an easier task.

Another success factor for integration is the size of the union. Theoretically, the larger the economic union, the more opportunities for specialization of labor and efficient use of production resources, especially if the integrated unit is a common market. Furthermore, gains from integration will be greater if pre-agreement tariff levels were high, particularly compared with those of importers who did not join the agreement. The higher the tariff, the greater quantity of regional trade that theoretically was restricted.

There is much disagreement about the effect of complementarity versus competitiveness between economies on the gains from integration. On the surface, however, if participating countries' economies are more complementary, then efficiency gains will be less than if the economies were more competitive, particularly if the cost differences between the economies are very large (Balassa 1961).

Beyond these more transparent factors is a general sense of cooperation necessary for the long-term stability of the union and internal political stability in the member countries. Other political considerations, such as compensation of industries in member countries that stand to be harmed by integration and mechanisms for equitable distribution of gains from integration among participating countries, also add to the long-term stability and success of economic integration.

6.1.4 Trade Creation versus Trade Diversion

Two basic potential effects of economic integration are trade creation and trade diversion. **Trade creation** refers to newly created trade among member countries, while **trade diversion** occurs when trade is diverted from a nonmember country to a member country because the member country is subject to lower or no tariffs.

Figure 6.1 shows an example of these effects, with the supply and demand for a particular good in country A, under the small country assumption, such that country A is a price taker in the external market. Before economic integration, the supply curve for imports from country B is depicted by $P_B + T$, which is the price level for these imports plus the tariff T. This total import price level is above the equilibrium price level in country A, so no trade occurs. However, when country A eliminates the tariff for country B under economic integration, the total import price falls to P_B, which creates trade. The quantity traded is the horizontal distance between the supply and demand curves at the price level P_B.

Trade diversion can also be explained using Figure 6.1. Suppose that another country was added to the market as an exporter, country C, with a pre-integration price level of $P_C + T$. Both countries B and C are subject to the tariff; the total import price for B is low enough that trade does occur with country A. If country A and country B were to join in a free trade agreement, then imports from country C would still be subject to the tariff, while imports from country B would not. Therefore, the import price from country C would still be $P_C + T$, while the import price from country B would fall to P_B. Trade would be diverted from country C to country B. Note that this solution is still less efficient than universal free trade since the lowest cost producer, country C, is excluded from the agreement and would suffer a welfare loss.

6.2 Overview of CACM

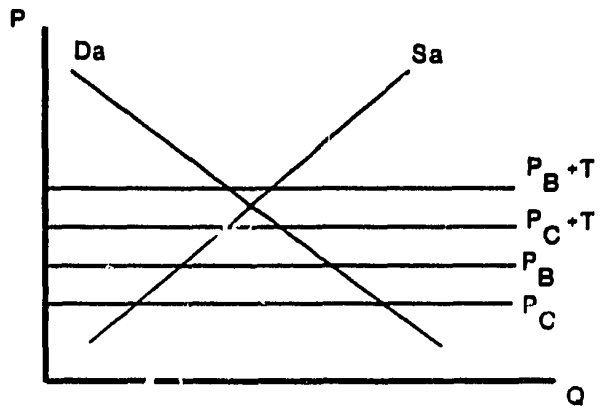
Despite its past problems, the Central American Common Market has renewed itself in the current wave of global and particularly hemispheric trade liberalization. This section provides an overview of CACM from a historical perspective, describes current initiatives to continue economic integration in Central America, and discusses the role of and prospects for El Salvador in the region.

6.2.1 Historical Background

In 1960, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua formed the Central American Common Market. Intraregional trade expanded rapidly in the early 1960s as member countries eliminated tariffs on most industrial goods and pursued a strategy of import substitution as a group. Economic growth within the region followed, and industrial development flourished with the exploitation of economies of scale. Foreign investment increased as new opportunities were perceived within the regional market (Cline and Delgado 1978).

96

Figure 6.1: Graphical Representation of Trade Creation and Trade Diversion



Trade in agricultural products in the early CACM was not as liberalized as that of industry, therefore, growth in agricultural trade was small. However, El Salvador did expand its export of rice and beans to Honduras, Nicaragua, and Costa Rica (Cappi et al. 1978).

The foundation of CACM was based on the principle of balanced development because member countries had differing levels of development. Common market programs were developed to compensate for these differences, such as targeting more industrial investment to the countries or regions that were less advanced. Other programs to channel more benefits to certain participants, namely Honduras, included income and property tax exemptions and tariff exemptions for machinery necessary for industrial expansion.

Despite these provisions, Honduras, and to a lesser degree, Nicaragua, felt that they were not given a fair share of the benefits of integration. Several agreements were proposed by the secretariat to correct these deficiencies, but most were never approved by the member governments. The entire issue is a trade-off. The application of the principle of balanced development itself precludes the realization of the full potential for economic integration because some constraints are placed on industries in the more advanced nations, and vice versa.

a1

By the late 1960s, however, the issue of unequal distribution of benefits of integration among member countries had reached serious proportions. Honduras felt it was being particularly exploited, and was receiving only a small portion of the benefits of integration according to several studies (Cappi et al. 1978), while Guatemala and El Salvador seemed to benefit most. Then, in 1968, the brief war between Honduras and El Salvador dealt a final blow to the unity of the region. Growth in intraregional trade stagnated, and the economies of member countries experienced declines due to both internal and external shocks. Between 1980 and 1985, all countries exhibited negative growth rates; by 1987, real per capita income was at the level attained in the early 1970s (World Bank 1990).

6.2.2 Future Plans and Prospects

In recent years, most of the economies of Central America have rebounded, and interest has been renewed in CACM. Intraregional trade has again been growing, although much of this growth comes from Guatemalan and Costa Rican exports (Figure 6.2 and Appendix C-1).

As the Central American countries re-integrate economically, the short-term goals call for, first, the reestablishment of the common external tariff for all of the member countries. The second priority is elimination of tariffs and nontariff barriers that were unaffected by the previous CACM agreement or that had been raised since the deterioration of the union. These actions are particularly relevant for agricultural products because agriculture, for the most part, had been excluded from the agreement (Bulmer-Thomas 1993).

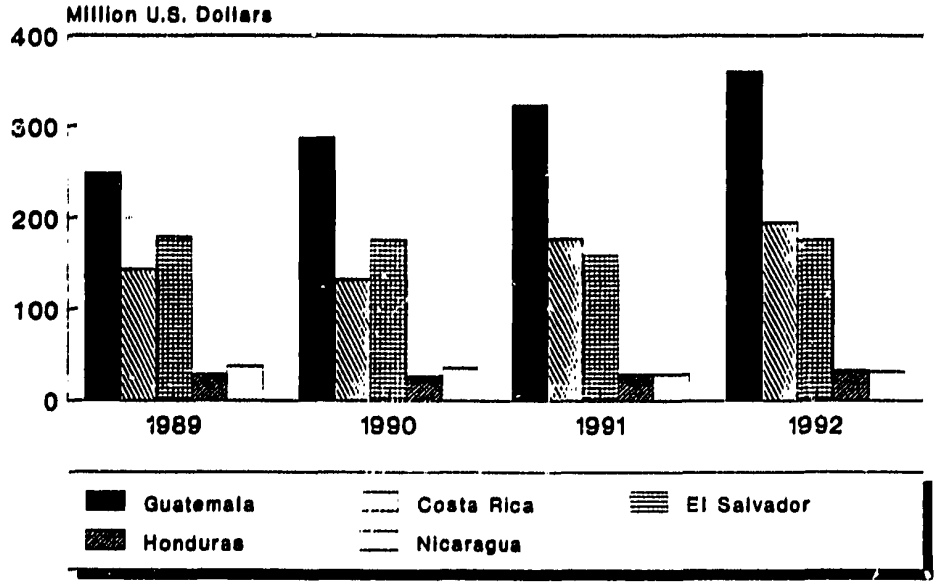
Other future integration actions include negotiations for common industrial and agricultural standards and norms, and possible coordination of economic policies. Section 6.6 discusses these topics in more depth.

An important consideration in these actions is to avoid the mistakes of the previous CACM. For example, some import substitution will occur on a regional basis due to trade diversion from the common external tariff. However, a strategy relying solely on import substitution will not produce lasting economic growth. Also, Central America will not achieve significant economic growth solely from economic integration in Central America: that will occur only from larger regional, hemispheric, and global trade liberalization in the longer term (World Bank 1990).

Discussions of trade liberalization have already begun, been proposed, with respect to Mexico, Panama, and Colombia, and the United States. El Salvador recently signed a free trade agreement with Venezuela that should benefit the agricultural and textile industries in particular (Forsythe and Neff 1993).

Some important criticisms have already been raised concerning this new wave of Central American economic integration. First, the negotiations have good intentions for regional cooperation and pride; however, they lack a clear direction or goal for the short, medium, and long term as to the final level or extent of economic integration. An economic union? A

Figure 6.2 Exports Among Central American Region, 1989-1992



Source: IMF, Dir of Trade Statistics

common currency? Also, concerns have been raised about the lack of understanding in depth of the effects and potential problems of different levels of economic integration. Furthermore, these negotiations are costly in terms of time and personnel, at the same time that many Central American governments are experiencing serious fiscal crises.

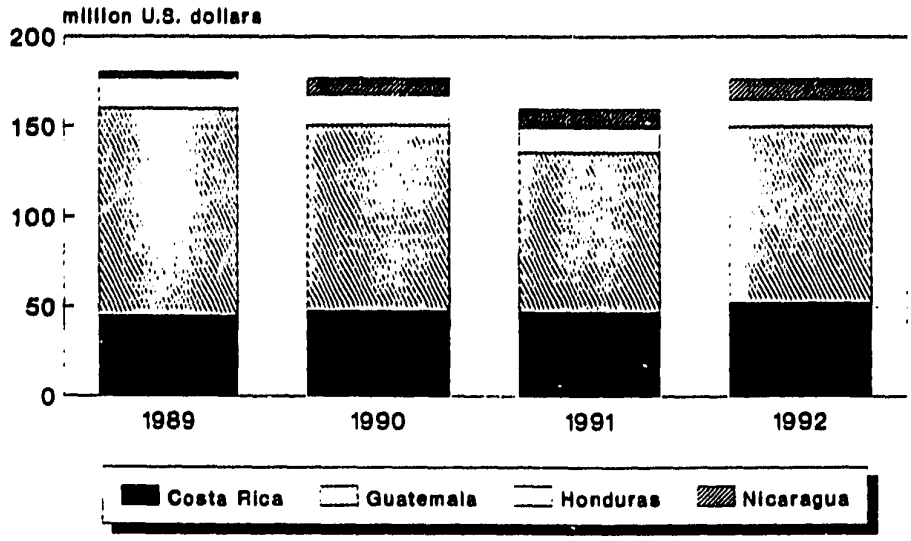
Furthermore, political instability is still present in the region, and the number of heads of state who will be changing in the coming years adds to the level of uncertainty. Finally, it appears that an effective mechanism to more equitably distribute the fruits of integration will not be established (Bulmer-Thomas 1993), which may lead to the same problems that caused the demise of the previous agreement.

6.2.3 El Salvador and CACM

El Salvador's exports to the rest of Central America have remained fairly constant over the last few years (Figure 6.3 and Appendix C-1), but this consistency should be viewed as a positive development given the difficulties in exporting during the war. Salvadoran agricultural exports to Central America (Table 6.1), remain an important, although small, component of the

99

Figure 6.3 Salvadoran Exports to Central America by Destination, 1989-1992



Source: IMF, Dir of Trade Statistics

country's total exports to the region. To El Salvador's credit, a substantial portion of these agricultural exports is processed foods with substantial value added.

Like the rest of Central America, El Salvador will benefit from participation in a renewed CACM, especially in gains of efficiency from specialization. Value-added agricultural exports to the region, given El Salvador's current agroindustrial base, should also continue to grow. However, market potential is limited, especially for agriculture. In the future, as incomes rise in other countries in the region, total consumption will rise, but this growth in total consumption would far outpace growth in food expenditures, even with substitution of higher quality food in the average diet.

To reiterate, rescue of CACM is an important first step for the region, but the greatest potential (including agricultural) for El Salvador and the rest of Central America lies in trade liberalization beyond the region, on a continental, hemispheric, or even larger scale, to provide an export market large enough to fully exploit the productive potential of these countries.

TABLE 6.1 VALUE OF MAIN SALVADORAN AGRICULTURAL EXPORTS AND TOTAL EXPORTS TO CENTRAL AMERICA, 1992 (THOUSAND DOLLARS)

	Guatemala	*Costa Rica*	*Honduras*	*Nicaragua*
Live chicks	1027.2	179.2	359.3	301.8
White corn	-	114.2	-	182.1
Pasta	684.6	-	137.6	66.6
Fresh or dried fruit	406.3	102.2	0.9	3.0
Fruit juice	157.0	-	1.2	185.3
Confections	2621.6	1424.0	109.9	729.6
Pastries	2294.2	387.3	79.3	506.4
Soft drinks	1233.2	1590.6	32.5	1138.9
Coffee	246.0	-	-	216.2
Spices and sauces	190.8	123.2	482.4	643.6
Raw sugar	-	-	2414.8	7773.0
Industrial fat solids	12879.4	368.2	14.9	2399.7
Total Ag. Exports	23591	5981	5457	18050
Total Exports	135949	59863	30577	30836
Ag. as Percent of Total Exports	17.35	9.99	17.85	58.54

Source: Banco Central de Reserva; *Revista Trimestral*, Jan-Mar 1993

6.3 NAFTA and El Salvador

In December 1992, Canada, Mexico, and the United States signed the North American Free Trade Agreement (NAFTA). The agreement is still awaiting approval by the U.S. Congress at the time of this writing. NAFTA includes provisions dealing with services, intellectual property rights, communications, and manufactured and agricultural goods. Side agreements were also completed in labor relations and environmental regulation.

Agricultural trade between the United States and Mexico is mostly complementary, due particularly to the differences in growing seasons for most horticultural products and to differences in cropping patterns. However, some products are competitive, and NAFTA will lead to some changes in the agricultural structures in both countries.

101

6.3.1 Effects of NAFTA on the United States and Mexico

Previous studies of the effects of NAFTA on the United States and Mexico have concluded that each country will have its share of gainers and losers in the agricultural sector. Generally, most Mexican fruit and vegetable producers, and possibly cotton producers would benefit due to more exports to the United States. On the other side of the border, U.S. producers of grains, especially sorghum, wheat, and soybeans, should benefit, as well as beef, poultry, and dairy producers.

As for specific fruit and vegetable commodities, Cook et al. (1991) postulated that Mexican exports to the United States of onions, lettuce, tomatoes, and possibly avocados would grow under NAFTA, if Mexico resolves its insect problems. The authors did not expect large increases in other fruits and vegetable exports due to Mexican deficiencies in inputs, infrastructure, and technology.

However, it is the project team's opinion that the marketing infrastructure is rapidly improving in Mexico, as is the level of technical skill. If Mexico solves these problems, other crops such as table grapes, broccoli and cauliflower, processing tomatoes, peaches, apples, strawberries, melons, and eggplant could easily see export increases to the United States.

Spreen, Muraro, and Fairchild (1991) concluded that Mexico has the potential to become an increasingly important producer of citrus products despite institutional barriers to the contrary. If a large enough capital investment were made for not only groves and packing and plants, but also for infrastructural projects such as roads and port facilities, Mexico could become much more competitive in the international citrus market.

Krissoff, Neff, and Sharples (1992) used a static trade model to simulate the effects of NAFTA on a range of disaggregated agricultural commodities. They estimated, for example, that U.S. imports of melons from Mexico would rise 10.8 percent, imports of frozen concentrated orange juice 32.1 percent, cucumbers 10.8 percent, onions 13.7 percent, green peppers 10.2 percent, and tomatoes 10.2 percent. Each increase would signify a slight increase in the Mexican share of U.S. imports for each product. They also estimated that U.S. imports of horticultural products from the rest of the world would decline 16 percent.

An important consideration in this discussion is the overall effect of NAFTA, beyond just horticultural products, and beyond agriculture. Perhaps the most significant gains for Mexico will come in light manufacturing. These gains should entail increases in income for Mexican workers. With larger incomes, Mexicans would not necessarily consume more food by volume, but would substitute higher value food products for staple foods. These income increases would make the Mexican market much more attractive for Central American exporters of value-added food products.

102

6.3.2 El Salvador's Trade Relationship with Mexico

El Salvador's trade relationship with Mexico is similar to that of the rest of Central America; Mexico is a small export market, but imports from Mexico far outpace these exports. Also, as it is with the rest of Central America, Mexico is keenly interested in liberalizing its trade with El Salvador.

Salvadoran exports to Mexico in 1992 were valued at US$10.1 million, while imports were valued at US$106.3 million, over ten times the value of exports. Of 1992 imports from Mexico, approximately 40 percent were petroleum products. In 1991, agricultural exports to Mexico, including processed agricultural products, comprised approximately 40 percent of El Salvador's exports to that country (Table 6.2).

In August 1992, the presidents of Mexico and of the Central American countries signed documents establishing the framework for negotiations for a free trade area among the countries to begin no later than December 31, 1996. The main negotiating areas are the elimination of tariff and nontariff trade barriers, joint investment projects, disagreement resolution processes, protection of intellectual property, rules of origin, technical cooperation, and exclusions of certain sensitive products from the agreement (Alas de Franco 1992).

An interesting observation about this agreement is the concern of some analysts about the different levels of economic and technological development between Mexico and Central America, precisely the same concern that was voiced by others about the differences between the United States and Mexico in NAFTA.

It is likely that the trade deficit that El Salvador and the rest of Central America have with Mexico will continue at current levels, if not increase. However, Central American negotiators should coordinate their efforts to ensure the most advantageous agreement possible for their countries. Fractured negotiations will only lead to continued trade dominance by Mexico in the region, to the detriment of Central American industry.

Furthermore, given the disparate levels of development between Central America and Mexico, asymmetry in the periods and percentage declines for tariff barriers is appropriate and necessary to offer temporary, transitional protection to Central American industries that will face stiff competition from Mexico. Also, road transportation throughout Mexico should be opened to trucks from other Central American countries to allow exports to both Mexico and the United States to move more freely. At present, a strong Mexican trucking union restricts movement. Only Mexican-owned trucks and drivers are permitted to transport trailers and containers over land. Thus, at the Mexican frontier, Central American drivers must transfer their cargo to Mexican-owned companies, increase the costs and creating scheduling difficulties.

TABLE 6.2 VALUE AND VOLUME OF SALVADORAN AGRICULTURAL TRADE WITH MEXICO, 1992 (THOUSAND DOLLARS)

Commodity	*Value*	*Volume*
Main Mexican Imports		
Fresh fish	802.1	195.0
Shellfish	167.4	42.7
Eggs	101.8	141.8
Sesame/mustard seed	425.9	546.0
Raw sugar	220.3	782.5
Ethyl alcohol	1004.0	3936.0
Animal feed	399.7	269.8
Total Ag. Imports from El Salvador	3292.5	-
Total Imports from El Salvador	8109.0	
Ag. as a Percent of Total Imports from El Salvador	40.6	-
		-
Main Salvadoran Imports		
Food emulsifiers	694.3	2057.6
Corn syrup	1073.3	3239.4
Breakfast cereal	204.4	137.2
Fruit juice	148.5	278.7
Yeast	350.0	147.4
Modified milk powder	234.4	90.2
Soft drink syrup	166.6	2.9
Vegetable proteins	343.4	99.3
Beer	181.5	341.2
Total Ag. Imports from Mexico	4021.8	-
Total Imports from Mexico	118198.0	-
Ag. as a Percent of Total Imports from El Salvador	3.4	-

Source: Banco Central de Reserva; Revista Trimestral, Jan.-Mar. 1993

6.3.3 El Salvador's Trade Relationship with the United States

El Salvador's export relationship with the United States resembles that of the rest of Central America, with a balance between different types of exports, but with agricultural commodities playing an important part (Figure 6.4 and Appendix C-2). Costa Rica outdistances the rest of Central America in terms of its exports to the United States; in fact, in 1992, its exports were greater than those of El Salvador and Honduras combined.

The United States is, by far, El Salvador's most important trading partner. In 1992, exports to the United States comprised 33.5 percent of El Salvador's total exports, while imports from the United States were 39.9 percent of its total imports. Figure 6.5 depicts the strong growth in all categories of El Salvador's exports to the United States since 1989. Agricultural commodities remain an important part of exports; given the decline in coffee revenues, this trend suggests the emergence of nontraditional export crops. Table 6.3 shows the value and volume of some of these exports, including processed agricultural products, in addition to major agricultural imports from the United States.

El Salvador is a member of the Caribbean Basin Initiative (CBI), a program of the U.S. government established in 1984, which extends trade preferences to most of the Caribbean island nations and Central American countries. The Caribbean Basin Economic Recovery Act of 1990 made the CBI a permanent program. The CBI allows duty-free entry to the U.S. market for all goods except some textiles and apparel, leather goods, footwear petroleum, rum, processed tuna, and watches. All agricultural goods except those mentioned previously enter the United States duty-free (Forsythe and Neff 1993).

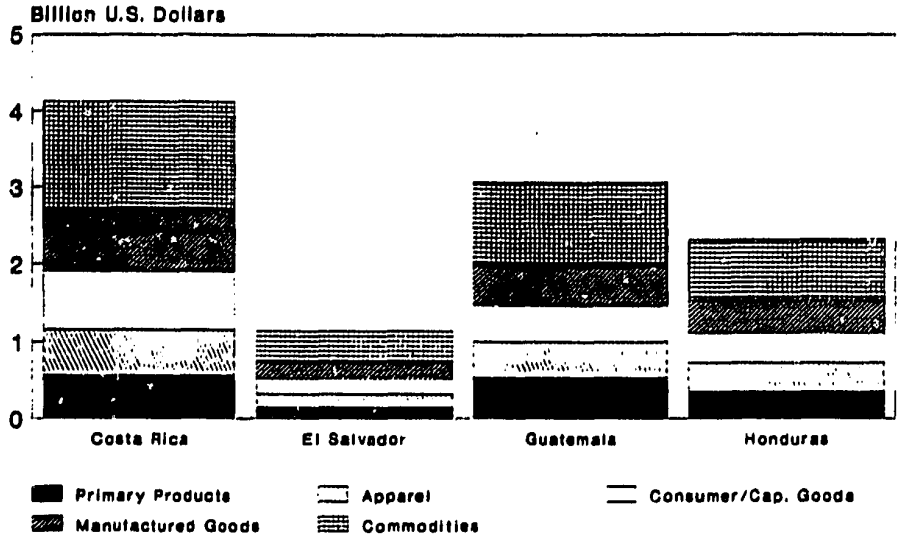
El Salvador is also eligible for special treatment under the U.S. Generalized System of Preferences (GSP), which provides eligible developing countries with lower tariff barriers when exporting to the United States. When developing countries reach high enough levels of development, they are "graduated" from the program. The program provides minor benefits to Salvadoran agriculture because most agricultural products are exempt from tariffs under the CBI. The United States has extended the membership of El Salvador in GSP until 1994, and is likely to extend it for another five to ten years.

6.3.4 Effects of NAFTA on Salvadoran Agricultural Exports

Given the importance of the United States as an export market for Salvadoran agriculture, there is a great deal of concern over the possible loss of substantial portions of this market to Mexico under NAFTA. This section analyzes some important crops and discusses more general effects of NAFTA on Salvadoran agriculture.

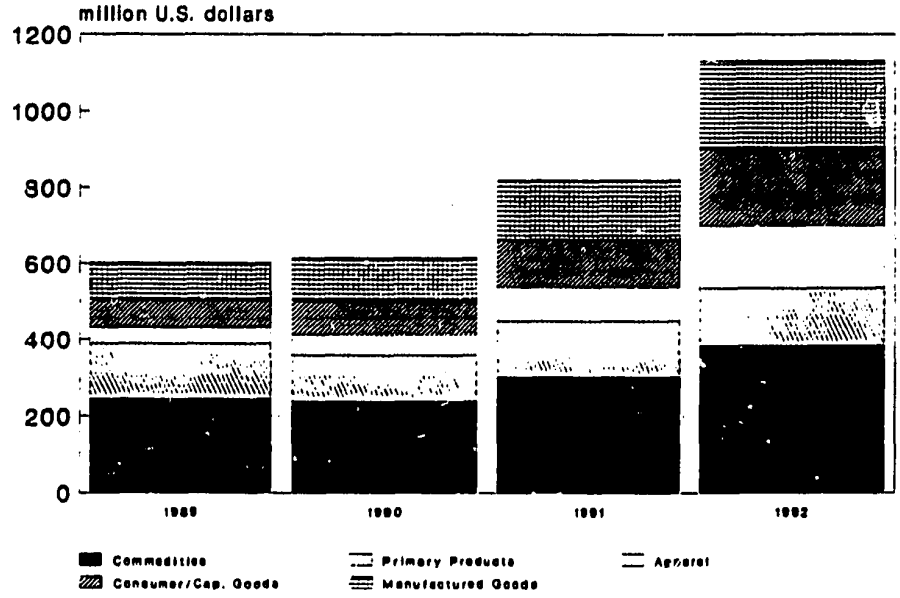
105

Figure 6.4 Composition of Central American Exports to the U.S. by Country, 1992



Source: USAID/Guatemala City

Figure 6.5 Composition of Salvadoran Exports to the U.S., 1989-1992



Source: USAID/Guatemala City

TABLE 6.3 VALUE AND VOLUME OF SALVADORAN AGRICULTURAL TRADE WITH THE UNITED STATES, 1992 (THOUSAND DOLLARS, FOB)

	Value	*Volume*
Main U.S. Imports		
Animals for slaughter	707.7	13.9
Fish and shellfish	21487.7	4328.1
Eggs	564.7	1073.2
Plants	183.6	154.9
Frozen vegetables	1711.2	3028.8
Beans	269.9	300.1
Fruit	2283.3	9478.7
Coffee	91840.4	80181.2
Corn flour	271.6	475.7
Sesame/mustard seeds	5174.7	5287.5
Balsam resin	949.4	98.5
Loofa	1197.6	123.9
Palm/coconut oil	191.8	117.0
Sugar	21561.8	67623.0
Molasses	2081.0	28986.6
Beer	271.1	628.3
Ethyl alcohol	1846.9	5081.5
Tobacco extract	363.4	74.5
Total Ag. Imports from El Salvador	154108.7	-
Total Imports from El Salvador	196431.0	-
Ag. as a % of Total Imports from El Salvador	78.5	-

107

Table 6.3 Value and Volume of Salvadoran Agricultural Trade with the United States, 1992 (continued)

	Value	Volume
Main Salvadoran Imports		
Live chicks	1277.0	29.3
Whole milk powder	9622.1	5996.7
Skim milk powder	1260.6	812.3
Beans	635.8	663.0
Grapes/raisins	1826.6	2178.3
Apples and pears	1046.9	1924.2
Yellow corn	8259.4	58131.4
Rice	3356.8	8955.8
Tallow	14417.2	39476.7
Cottonseed/soybean oil	19811.3	38214.3
Food starches	2312.3	329.7
Soybean meal	17052.3	71443.7
Total Ag. Imports from U.S.	121711.3	-
Total Imports from U.S.	557065.0	-
Ag. as a % of Total Imports from U.S.	21.8	-

Source: Banco Central de Reserva; Revista Trimestral, Jan.-Mar. 1993

First, however, an important comment should be made. This analysis is purely qualitative. The actual magnitude of changes in Mexican exports to the United States (or vice versa) is not estimated, only the direction. Furthermore, it is not known whether these changes in exports will be the result of trade creation, where the increased exports replace U.S. production, or from trade diversion, where they replace exports from a third country, or a combination of both. Therefore, the analysis given here is purely speculative. A simulated modelling exercise is needed to better address this question. The data requirements are high and this contract does not allocate sufficient time or resources for the undertaking of such a task.

Another important note is that total demand for horticultural crops in the United States is relatively inelastic. Substantial growth in consumption of fruits and vegetables is not expected to occur, with some exceptions; therefore, most gains by Mexico in the sector will logically come at the expense of either U.S. or third country producers.

108

As a point of reference, Table 6.4 lists important agricultural exports from both El Salvador and Mexico to the United States. Mexico is quite often the major supplier to the United States. While Salvadoran exports are only a small percentage of total U.S. imports of these products, they are a significant share of total Salvadoran exports.

Pérez (1992) used a similar style of qualitative analysis for the Central American region as a whole and concluded that exports of such products as cucumbers, pineapples, and cantaloupe would likely be most affected by NAFTA. Other nonquantitative gains for Mexico come in the ability to more easily harmonize sanitary and phytosanitary regulations and procedures with the United States, ensuring better market access.

Several factors, however, could dampen estimates of increases in Mexican exports. First, there is only so much land in Mexico that can produce these horticultural crops. Without substantial increase in yields, production growth is limited. Second, income growth in Mexico will lead to improved diets for its citizens, including more fruits and vegetables. Therefore, some growth in production would go toward supplying domestic demand. Third, as mentioned previously, substantial technological and infrastructural gaps exist between the United States and Mexico for certain crops, which may slow the increase in production.

The harvest seasons for most horticultural crops for Mexico and the United States are mostly complementary (Appendix C-4). Although Mexico's harvest competes with Florida's harvest, most Mexican exports go to the western and midwestern United States while Florida production supplies the East Coast. Therefore, neither country has a substantial impact on the market during the harvest season of the other. The United States even exports some fruits and vegetables to Mexico from California during that country's offseason.

El Salvador typically has the same harvest seasons as Mexico; there is some potential, however, to exploit small differences by using alternative planting times for row crops and exporting to the United States during the offseason for both countries.

The list of horticultural crops that El Salvador is eligible to export to the United States is much larger than the list of actual exports (Appendix C-5). So, further development, especially in niche or ethnic markets or markets for less mainstream tropical fruits, is possible.

Watermelon, Honeydew, and Canteloupe. U.S. imports of melons will be subject to new seasonal tariffs that allow the maximum transition period for the benefit of U.S. producers but also grants Mexico improved access during its main shipping seasons. Current duties for canteloupe imports from Mexico range from 20 to 35 percent from May 16 to December 31, with no tariff applied during January 1 to May 15. Under NAFTA, cantaloupe imports from Mexico will be subject to tariffs of varying levels from May 16 throughNovember 30. These tariffs will be phased out over 10 to 15 years. The duty-free entry period will immediately be expanded to December 1 through May 15.

TABLE 6.4 COMPARISON OF MEXICAN AND SALVADORAN COMPETITIVE EXPORTS TO THE UNITED STATES, 1991

	Mexican Exports			*Salvadoran Exports*			
Commodity	Value	Volume	% of U.S. Imports	Value	Volume	% of U.S. Imports	% of ES Exports
bananas	56741	217390	6.4	0	0	0.0	0
citrus	33133	103264	57.1	65	107	0.1	45.1
melons	99279	339447	66.3	3239	10316	2.0	93.3
cashews	0	0	0.0	0	0	0.0	0.0
broccoli/ cauliflower	92734	143753	89.7	220	405	0.3	46.3
cucumbers	72725	159962	92.1	70	67	0.0	-
okra	4918	13004	65.6	1731	2605	13.1	78.3
peas	9327	5821	16.9	37	41	0.1	-
dried beans	8601	12388	26.8	258	157	0.3	-
sugar	3463	7805	0.5	26847	55165	3.4	68.0
molasses	14580	1677285	17.9	2603	287570	3.1	-
sesameseed	26116	22226	61.0	5636	5878	16.1	30.0
sesame oil	1166	601	10.3	88	45	0.8	-
nursery stock	7146	-	-	111	-	-	-

Source: USDA FATUS, 1991; MAG Anuario Estadistico Agropecuario, 1992.

Note: Values are in thousand U.S. dollars. Volumes are in metric tons, except molasses which is HL. Percentages shown are percentages of total volume.

Watermelon imports from Mexico are currently subject to a 20-percent tariff year round. Under NAFTA, one import period will be covered by a special safeguard, a seasonal tariff-rate quota. From May through September, Mexican watermelon exports up to the quota limit enter without duty. Those above the limit are assessed an initial tariff of 20 percent that will be phased out over ten years, and the quota limit will also increase 3 percent compounded annually. During the rest of the year, Mexican watermelons will enter the United States without a duty.

Other melons from Mexico, including honeydew, are currently subject to an 8.5-percent tariff from December 1 through May 31, and a 35-percent tariff from June 1 to November 30. NAFTA provides for a 5 to 15-year phase-out period for these tariffs.

Salvadoran exports of melons, especially cantaloupe, are threatened by NAFTA due to the close proximity of Mexican production to the United States, compared with that of El Salvador. Land transportation routes are improving in Mexico, and customs procedures will be streamlined under NAFTA, both of which will reduce shipping costs. Therefore, some displacement of Salvadoran melon exports to the United States is expected.

Citrus. Currently, U.S. imports of limes and lemons from Mexico are subject to tariffs of 2.2 cents/kg and 2.75 cents/kg, respectively. Under NAFTA, these tariffs will be phased out over a ten-year period. Orange imports from Mexico are currently subject to a tariff of 2.2 cents/kg year round. Under NAFTA, the tariff on oranges will be removed immediately for June 1–November 30 shipments, while the tariff during the rest of the year will be phased out over five years.

Mango imports from Mexico are currently subject to an 8.5-percent tariff, which would be eliminated immediately, except during June 1 through August 31, where the tariff would be phased out over five years under NAFTA. Fresh or dried pineapple exports from Mexico are currently subject to seasonal tariffs up to 3.7 percent, which would be phased out immediately under NAFTA.

Currently, El Salvador exports some citrus to the United States, mainly limes, but no mangoes. It is difficult to export mangoes due to sanitary regulations. Most Mexican citrus shipments are oranges, and very little export of limes occurs. Therefore, Salvadoran lime shipments are not seriously threatened, at least in the short run.

Although El Salvador does not currently export pineapples to the United States, there has been some interest in doing so. However, Mexico and Costa Rica already have a strong presence in the market, and with tariffs toward Mexico being eliminated, its presence will strengthen further. Entrance into the U.S. pineapple market for El Salvador will be difficult.

Fresh and Processed Vegetables. Current tariffs on fresh cauliflower imports from Mexico into the United States are 12.5 percent year round, except from June 5 to October 15, when the tariff is 5.5 percent. Under NAFTA, the tariff from June 5 to October 15 and from

December 1 to December 31 will be eliminated immediately, while the duty during the rest of the year will be phased out over five to ten years.

U.S. fresh broccoli imports from Mexico are currently subject to a tariff of 25 percent year round. NAFTA provides for the phase-out of these tariffs over a 5- to 15-year period.

Fresh or chilled okra imports from Mexico are currently subject to a 25-percent tariff year round. Enactment of NAFTA would immediately eliminate that duty. Frozen okra is subject to a 17.5 percent tariff, which would also be eliminated immediately.

Broccoli, cauliflower, and okra destined for the United States are important exports for Salvadoran agriculture. Due to the long phase-out period of U.S. tariffs toward Mexico provided by NAFTA, Salvadoran industry will have adequate time to invest more in infrastructural improvements, especially packing houses, to be better able to compete with Mexican exports. If, however, these changes are not made, Mexico could easily overtake El Salvador's market share.

Fresh squash from Mexico is currently subject to a 2.4-cents/kg import tariff. Under NAFTA, the July 1 through September 30 tariff would be phased out over five years. During the rest of the year, a tariff-rate quota would be established, where imports up to 120,800 metric tons would enter duty free, and above-quota imports would be subject to the tariff, which would be phased out over ten years. The quota amount would grow by 3 percent compounded annually. Chayote squash, fresh or chilled, is subject to a 12.5-percent tariff, which would be eliminated upon enactment of NAFTA.

Currently, Salvadoran exports of squash are small to none. However, the chayote squash market in the United States does have strong potential for growth, especially in the ethnic market. Under NAFTA, though, Mexico's competitive position, especially given its proximity to the United States, may be hard to overcome.

Processed vegetables are currently subject to a myriad of tariff levels, ranging from 13.6 percent for tomato paste and 17.5-percent for frozen broccoli and cauliflower to 35 percent for dried onions and garlic. The tariffs for frozen broccoli, frozen cauliflower, and tomato paste would be lowered immediately under NAFTA to 15-percent, 15-percent, and 11.5-percent, respectively, and phased out over ten years. The tariffs for dried onions and garlic would be phased out over 15 years.

As U.S. tariffs decline, horticultural products with longer storage capability or that can be processed or frozen and subsequently exported year round have great potential for export growth.

Processed vegetable exports from El Salvador to the United States are small, but this is precisely the type of value-added product that would overcome time-to-market barriers for fresh vegetables. Mexico's sole advantage is its closeness, in addition to whatever cost differences

12

may exist. With lower labor costs, El Salvador could gain market share in the United States, although the marketing and processing infrastructure investments required are great.

Fresh Flowers and Ornamental Plants. Current U.S. barriers on fresh flowers and live plants from Mexico consist of tariffs up to ten percent. NAFTA provides for the immediate elimination of all these barriers. As an emerging industry in El Salvador, a decline in these exports would be damaging, but, unfortunately, it is likely to occur.

Nuts. All U.S. tariffs on fresh or dried nuts imported from Mexico will be eliminated upon enactment of NAFTA. Cashew imports are not currently subject to a duty under Most Favored Nation (MFN) treatment. Mexico does not currently export macadamia nuts to the United States. The main export nut crop in Mexico is pecans.

Cashew nuts are the main nut export from El Salvador, with most exports going to the United States. Although the sector is not dependent upon these exports, cashews have excellent export potential.

Sugar. The United States is currently a net exporter of sugar to Mexico; however, speculation has risen as to the potential for Mexico to become a net exporter of sugar. Both countries have agreed to lower barriers to sugar imports. For U.S. imports, NAFTA limits additional duty-free access to no more than Mexico's projected net production surplus of sugar, or domestic production minus total consumption. This provision should prohibit Mexico from importing sugar to satisfy its domestic needs and subsequently selling its own production to the United States where prices are significantly higher. The U.S. over-quota tariff will be reduced over 15 years, and the quota limit will increase by ten percent annually in years 7–15 of the agreement.

Mexico currently applies a variable levy on sugar imports from the United States and elsewhere. Under NAFTA, Mexico will align its tariff regime with that of the United States by year seven of the agreement (Buzzanell and Lord 1993).

Although it is possible that Mexico could begin to export more sugar to the United States, it is unlikely that production could rise high enough to surpass its own domestic demand in the near to medium term. Therefore, Salvadoran sugar exports are not directly threatened, unless other international events lead to a decrease in its U.S. sugar quota allocation.

Coffee. Mexican coffee exports are not currently subject to import tariffs in the United States due to Mexico's MFN status. This status will not change under NAFTA. Therefore, it is expected that NAFTA will have no effect on Mexico's or El Salvador's coffee exports to the United States.

Fish and Shellfish. Fish and shellfish from Mexico currently enter with little restriction by means of tariffs. Also, Mexico supplies a very small portion of the U.S. fish import market, as does El Salvador. Therefore, NAFTA is not expected to greatly affect these exports to the

United States. However, for both Mexico and El Salvador, sanitary and phytosanitary standards are a concern. Progress in transportation and packing facilities would give an advantage to one country over the other. Therefore, if Mexico continues to improve its infrastructure, it could displace some Salvadoran fish and shellfish exports.

Cotton and Textiles. Under NAFTA, U.S. import restrictions on Mexican cotton will be replaced by a tariff-rate quota for the ten-year transition period. In-quota shipments will enter the United States duty-free. Above-quota imports will face a tariff equivalent of 29 percent, phased out over ten years. The quota level will increase by 3 percent compounded annually.

Strict rules of origin for the textile exports from Mexico to the United States are stated in the agreement, allowing only NAFTA-origin apparel. However, another tariff-rate quota may be established for textiles with less than 7 percent by weight of fibers and yarns from non-NAFTA origins.

The cotton industry in El Salvador is in a precipitous decline. Growth in domestic demand by its own textile industry, coupled with barely noticeable production levels due to high costs and low world prices, has left the country with excess demand for cotton. Although cotton production is unlikely to revive, if it did, El Salvador could again export cotton, but this time perhaps to Mexico to take advantage of the non-NAFTA origin provisions for textiles.

Corn and Beans. Mexico imports some corn from the United States. Under NAFTA, these imports should increase over time. The agreement imposes a tariff-rate quota on imports of U.S. corn, where below-quota imports enter duty free, and above-quota imports would be assessed a 215-percent tariff initially. This tariff will be reduced by 24 percent the first six years, then be phased out over nine years. The quota level will increase by 3 percent each year for 15 years.

For dry beans, Mexico currently requires import licenses that restrict entry, but no tariff. Under NAFTA, Mexico would eliminate the license requirement immediately, and a tariff-rate quota would be established. Again, below-quota imports from the United States would enter duty free, while above-quota imports would be assessed a tariff of $480 per ton. The tariff would be reduced 24 percent the first six years, with the remaining tariff phased out over nine years. The quota will increase 3 percent per year for 15 years. U.S. dry bean exports to Mexico are expected to increase slightly.

Both corn and beans are staple foods in the Mexican diet and are also very important traditional crops for small farmers. Because of these factors, the tariff levels allowed under NAFTA start out at high levels to provide transitional protection for these producers. The change in trade of these commodities between the United States and Mexico, by itself, should not affect Salvadoran imports.

6.3.5 Foreign Investment Concerns

One of the greatest fears of Salvadoran business about the effects of NAFTA is the loss of potential foreign investment. At the end of the civil war, hopes were high that El Salvador could gain significant quantities of foreign investment and grow tremendously in terms of industrial capacity and renovation, which has occurred to some extent, particularly in the free trade zones.

However, some foreign investment, not just from the United States but also from Asia and Europe, which would have otherwise gone to El Salvador may go to Mexico for several reasons. First, laws and regulations concerning foreign investment in Mexico have been revised and liberalized tremendously, creating many more opportunities for foreign capital in Mexico. Second, NAFTA is expected to compel growth in light manufactures in Mexico, especially in maquila (assembly) type operations, leading to substantial interest by foreign investors.

Third, although El Salvador today is much more politically stable than it was two years ago, Mexico is probably perceived as more stable. NAFTA specifically protects U.S. investors against expropriation.

Fourth, Mexico has a larger pool of well-trained managers and technicians to offer support to these enterprises. However, even if foreign investment is diverted to Mexico, as Mexico experiences greater economic growth, wages will rise, perhaps raising labor costs enough to redirect some of this foreign investment to other countries, in general, and El Salvador, in particular.

Some analysts have speculated that freer trade with Mexico by El Salvador will draw more funds from Mexican investors into the country (Navarrete 1993). While this is possible, it is unlikely to surpass, much less approach, the diversion of foreign investment by third party countries from El Salvador to Mexico.

An additional concern is that some Salvadoran investors may elect to send their investment funds to Mexico to take advantage of opportunities there instead of investing at home.

This foreign investment that otherwise would have gone to El Salvador would probably have gone into light manufactures, not into agricultural industries or production. However, this investment diversion could increase credit demand in an already credit-scarce market, causing further upward pressure on interest rates. Higher interest rates, or in other words, a higher cost of borrowing, make speculative ventures such as nontraditional agricultural exports less likely to secure financing and also make other more traditional agricultural ventures more expensive to operate. In a time when agricultural production has not recovered from war-related declines, such credit problems would make recovery much more difficult.

6.3.6 Accession to NAFTA

The question of whether to accede to NAFTA or not, or to do so as a Central American bloc or individually, is of great interest to policymakers. The president of FEDEPRICAP has suggested that Central America should seek to be admitted to NAFTA under the same treatment as Mexico and Canada ("Centroamérica . . ." 1993). The region is very concerned about having its CBI benefits neturalized.

Different scenarios for the expansion of NAFTA include the hub-and-spoke model, where the United States would have different agreements with different countries; overlapping regional free trade areas, such as NAFTA and Mercosur; and plurilateral regionalism, where the provisions of NAFTA would be extended to other countries (Lipsey 1991).

Some quantitative studies on the effect of preferential trading agreements in the Western hemisphere indicate that when additional countries are added to an agreement such as NAFTA, countries already in the agreement could lose some exports (Krissoff and Sharples 1993).

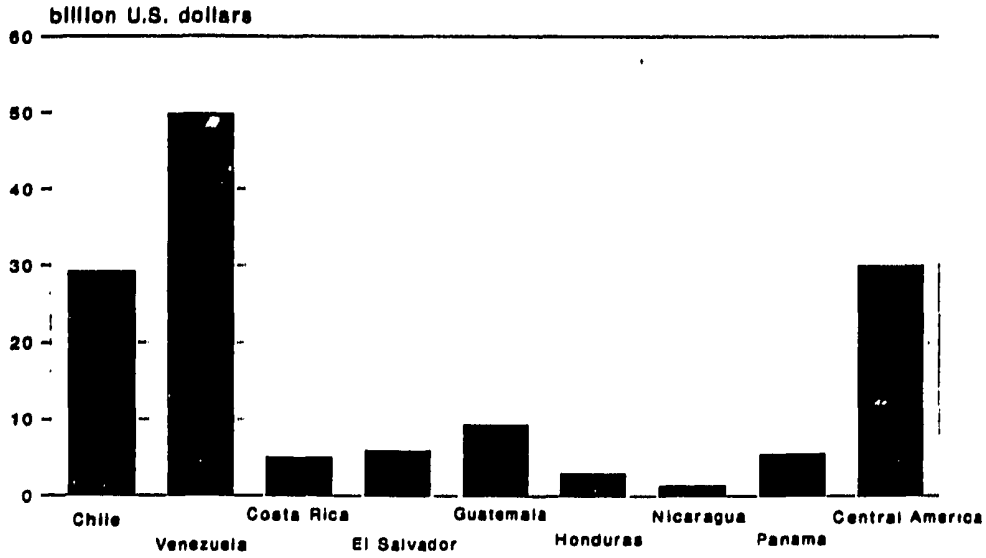
Another study argues that the simplest route is to invite other Latin American countries to sign NAFTA as it stands, the plurilateral regionalism model. However, the incentives are minimal because many exports to the United States from these countries, especially CBI members, are free of trade barriers. The study further estimated the benefits for accession to NAFTA and found that sequential entry of other countries into NAFTA dilutes the benefits received by previous entrants.

It is the project team's opinion that El Salvador should pursue accession to NAFTA as a coordinated effort with the other countries of Central America. Pursuit as individual countries is likely to be seen as a low priority by the U.S. government and its negotiators compared with negotiations with such countries as Venezuela or Chile. These economies are much larger than those in Central America (Figure 6.6), but when the Central American economies are combined, they appear much larger and important, and would generate more interest in the United States and wield more negotiating power.

The largest benefits of joining for El Salvador would likely come from a higher degree of security of access to the U.S. and Mexican markets and greater discipline over domestic policy reforms as dictated by a trade agreement. El Salvador's potential losses in agricultural exports due to Mexico joining NAFTA may not be recouped in the short term if El Salvador joins NAFTA. However, as El Salvador's own infrastructure improves, it may become competitive enough to regain whatever market share it loses.

An important concern if El Salvador were to join NAFTA is for its agricultural imports, especially corn and beans. Although NAFTA provisions give a significant transitional time for Mexico to adjust its production structure, El Salvador's agricultural structure seems likely to evolve more slowly. U.S. farmers could see the opportunities to produce white corn for human consumption or to produce bean varieties in line with Salvadoran preferences, export these

Figure 6.6 Central American GDP Compared to Chile and Venezuela, 1991



Source: IMF Int.l Fin. Statistics

products to El Salvador if prices were high enough, and displace higher-cost Salvadoran production.

Given the large number of Salvadoran farmers who rely on these commodities as an important or sole source of income, such potential losses have important implications for negotiations and agricultural policy. First, El Salvador should seek special treatment for these products, with the longest and slowest tariff reductions possible. Second, policymakers should continue and expand efforts to diversify the cropping mix of small farmers through increased extension programs and marketing assistance.

Although it is in Central America's best interest to negotiate jointly, the reality of the process is that Costa Rica is openly pushing for singular treatment with the United States, and its proposal is being received with great interest in the United States. Whether El Salvador and the other Central American countries can coordinate their efforts well enough and convince Costa Rica to join together for negotiations with the United States is feasible but doubtful.

6.4 El Salvador and GATT

On December 13, 1990, El Salvador agreed to the protocol for its accession to GATT, the international organization that oversees multilateral trade negotiations. In this agreement, El Salvador agreed to lower its maximum import tariff to 50 percent immediately and to 40 percent by December 31, 1993, with some exceptions. As shown previously in Table 2.4, since 1989 El Salvador has aggressively reduced tariffs, often far beyond the GATT requirements. By joining GATT, El Salvador can enjoy most-favored-nation status for exports to all GATT signatories, which includes nearly all destinations for Salvadoran exports.

The move was in keeping with El Salvador's plan for a more open economy; however, the agreement is not without criticism. For example, MAG was not included in the negotiations for the accession agreement, even though the agricultural sector is particularly sensitive to imports, especially of corn, rice, and beans. Second, the list of exceptions to the maximum tariff is without clear reasoning. Some commodities that are very sensitive to imports, such as beans, were not exempted, while others, such as live beef cattle, were exempt from immediate tariff reduction. Overall, however, the agreement was an important step in bringing El Salvador into the more liberalized regime of world trade.

6.5 Opportunities and Challenges for El Salvador under Liberalized Trade

Although the transition to a more open economy provides El Salvador with many new opportunities for export growth, it also raises many challenges for better regional coordination, a willingness to change and adapt, and the necessity to increase competitiveness.

6.5.1 Harmonization of Sanitary and Phytosanitary Regulations

Efforts toward harmonization of sanitary and phytosanitary regulations in the Central American region have been quite successful and are expanding. The regional organization coordinating these efforts (Organismo Internacional Regional de Sanidad Agropecuaria, or OIRSA) has designed a framework to eliminate border checks or quarantine measures for agricultural pests, and to protect against the influx of such pests by monitoring of imports from non-OIRSA countries. Members of OIRSA include the Central American countries, Mexico, and the Dominican Republic.

OIRSA's short-term goals include a unified agrochemical registry system, where registry with one country in the group would allow a particular chemical to be used throughout the region and would also give governments the opportunity to revise their list of permitted chemicals.

A regional program has begun, the Programa de Apoyo Regional de Sanidad Agropecuaria (PARSA), directed by OIRSA and funded by the European Community. PARSA's goal is to improve quarantine monitoring services and control pests by establishing regional laboratories, training personnel, and establishing a database to record laboratory results. The

future of the project seems uncertain because there have been no funding commitments from member governments once European support has run out, and with the number of governments changing leaders in the next few years, moral support for the project is also uncertain. The continuation of these efforts to harmonize regional sanitary and phytosanitary regulations is critical for reducing trade barriers between Central American countries.

An important problem for El Salvador and the rest of Central America is the number of products they are not allowed to export to the United States for sanitary or phytosanitary reasons. Coordinated efforts to train agricultural industry workers as to safe practices and to improve minimum government standards may someday lead to removal of these U.S. import bans.

6.5.2 Cooperation and Coordination of Monetary and Fiscal Policies

While the elimination of tariffs within Central America and the renovation of the common external tariff is a notable achievement, cooperation in the field of monetary and fiscal policy will lead to greater benefits from economic integration. Such coordination may be difficult because it requires member countries to humble themselves to the needs of the region as a whole and requires them to shift some of their sovereignty to a regional quasi-government. One need only look at the history of the Maastricht Treaty in the European Community to realize how difficult it can be for countries to give up these powers.

The initial years of CACM led to many attempts at coordination of these monetary and fiscal policies. Monetary policies, in particular, seemed well-coordinated, at least on the surface. Exchange rates were pegged to a nontraded common currency unit, which was itself pegged to the dollar. These exchange rates of individual countries did not fluctuate, however, leading to significant over- and undervaluations of some currencies with respect to the dollar and to other regional currencies, which artificially penalized or subsidized exports. Also, no transactions were made in this regional currency unit, making its existence less significant.

Also, a clearinghouse of currencies was set up to correct for monetary imbalances among countries in the region. However, this institution did not actually coordinate activities between the individual countries' central banks nor did it regulate flows of capital. The various regional bodies concerned with trade and finance did not form a cohesive group when attempting to coordinate monetary policies (Fitzgerald and Croes 1989).

For CACM to be truly successful, the next step is some degree of monetary and fiscal coordination. Differences in real and equilibrium exchange rates will lead to volatile shifts in imports and exports. Inflation and interest rate differences will lead to significant influxes of capital from one country to another. Some sort of regional funding mechanism is necessary for industrial projects that will benefit all member countries.

Expression of the intent to institutionalize coordination of monetary and fiscal policies in CACM was included in the Declaration of Antigua in 1990. The main decisions included the

119

intent to establish a new regional system of payments, begin a program of construction and renovation of physical infrastructure to support regional trade, promote the coordination of macroeconomic adjustment policies, establish a compensation program for those injured by the economic adjustment, and elaborate a coordinated agricultural policy (Orellana Merlos 1993).

6.5.3 Restructuring Agriculture and Agroindustry

The liberalization of Salvadoran trade has important implications for both agriculture and agroindustry. Both must expand their perspective concerning who is their competition. Salvadoran exports will increase, but so will imports. Both changes imply the need for agricultural producers and processors to adapt to changing markets and improve their competitiveness.

The renovation of CACM also provides the opportunity to develop more agroprocessing facilities to serve producers on a regional rather than on a country level. Increased production of value-added agricultural goods, especially those destined for export, is an important step in the modernization of agriculture. Value-added exports provide more employment and earn greater foreign exchange.

The development of these facilities and the restructuring of agroindustry requires capital, and high interest rates do not make such activities more attractive. If interest rates do not become more favorable for borrowers, then another possibility is the strengthening of capital markets and the encouragement of use of equity financing.

6.6 Policy Implications and Recommendations

Agriculture will remain an important sector in the economy, but growth in manufacturing and services will continue to provide most new employment opportunities for the Salvadoran work force. However, the agricultural work force is still essential for feeding the Salvadoran population. Furthermore, El Salvador's cities are not equipped to absorb even larger influxes of displaced rural residents. Therefore, maintenance of a stable, growing income base for El Salvador's farmers is important.

Economic integration will lead to many changes in agricultural structure in El Salvador. To fully enjoy the benefits of integration and to minimize its costs, the following actions are recommended:

- Begin quantitative research on the effects of NAFTA and CACM on the agricultural sector to provide policymakers with reliable information in production and export trends with which to make policy decisions.

- Based upon these modeling results, distribute the information to agricultural producers and other agents in the agricultural sector so that they too can be prepared for changes in prices and demand.

- Develop a clear vision of the goal for renewed Central American economic integration and understand its implications for agriculture.

- Coordinate negotiating efforts concerning CACM and the United States or NAFTA with the other Central American governments.

- Continue agricultural policy reforms to "let the markets work" and allow farmers to base production decisions on unregulated, non-artificial incentives and to let success be based on true comparative advantage and competitiveness.

- Emphasize agricultural diversification projects targeted for export and facilitate financing of such projects.

- Emphasize and facilitate the increased production of value-added products, especially for export, to provide more employment and gain more foreign exchange.

- Organize retraining and compensation programs for industries and their employees who may be harmed by trade liberalization, but do not protect them indefinitely from this change.

7. MEASURING EXPORT COMPETITIVENESS

7.1 Introduction

El Salvador exports a modest range of traditional (coffee, sugar) and nontraditional (shrimp, sesame, melons, ornamental plants, okra) products. If the Government of El Salvador adopts an export diversification program it will need to rank the export potential of various commodities in order to best utilize scarce resources, for example, in deciding where to focus agricultural research and extension efforts. A clear, and well-conceived trade and export promotion program stems from a long-term vision and continuing assessment of constraints, opportunities, and competitiveness. The sectors and commodities with the greatest potential need to be identified, an inventory of trade and production constraints as well as market opportunities made, market studies conducted, and a plan of action developed and implemented to minimize the constraints and maximize the exploitation of market opportunities.

In other words, a series of simple questions must be asked:

- What high-valued commodities can El Salvador produce on a commercial scale?
- What is the market demand in destination markets, taking into account seasonality, quality, and packaging factors?
- What are the import requirements?
- Given the state of the technology, prices, and demand level, can El Salvador compete effectively with existing suppliers of the commodity?

At the moment, the Carana Corporation has produced a document for FOMEX that identifyies a list of agronomically suitable and commonly believed to high potential commodities. However, no thorough marketing and competitiveness studies have been conducted. The team proposes such a study(ies). The specific methodology we are recommending be used is called Policy Analysis Matrix (PAM) which yields all of the standard measures of comparative advantage and efficiency as well as permitting the easy incorporatation of non-price and qualitative factors in one general framework.

7.2 Conceptual Approaches to Determining Comparative/Competitive Advantage

Several approaches exist and are listed below, moving from the simplest to the most comprehensive.

7.2.1 Commodity Approach

This approach is primarily descriptive in nature, although it also involves price forecasting. Basically, it consists of an examination of the world market situation for a commodity or a group of related products (e.g., oilseeds, meals, and oils). Both the supply and demand situation are described—i.e., who are the main producers, consumers, and what are the main factors influencing world prices, trends, market shares, costs of production, marketing costs, etc. This leads to an evaluation of the price outlook, given the current market conditions and some expectations for the future (usually using a pessimistic, "best guess scenario", and an optimistic outlook).

7.2.2 Export Parity Prices

Export parity prices are derived by adjusting the international market price to give the equivalent price at the border or export position of the countries being studied. This approach assumes that the international border price of a commodity represents the efficiency benchmark against which the country of interest's production costs should be measured. Thus, the choice of international reference price is very important and raises issues as to which market is the correct geographic term of reference, whether a long-run "trend" price is the most appropriate price to use, how one estimates that price, and which quality of commodity to base the price on.

The export parity price can be decomposed into its major parts: international price (f.o.b.) in the export market under study minus the freight cost of transporting it to the domestic market of interest minus any tariffs in the market under study minus insurance costs for the commodity in transit to the market. Then it is possible to move backwards from the export location to the farm-level to derive the domestic price equivalent at the border. This domestic price equivalent can be disaggregated into its major cost components; the price received by the farmer + processing costs + domestic transport and handling costs (including interest charges) for the period the crop is in transit from farm to port + marketing margin + any taxes paid in production, processing and transport.

By decomposing the domestic price at the border and the export parity price, it is possible to focus on distortions, i.e., policies, that result in differences in these prices. In this manner, marketing margins—i.e., transportation, processing, etc., costs that make up the difference between the farm-level price and the export parity price are examined. In most developing countries, the competitiveness of these commodities will be a function of these costs, to a large extent, so many inefficiencies in the marketing channels (e.g., high transportation costs due to lack of good roads) exist.

7.2.3 Nominal Protection Coefficients and Effective Protection Coefficients

The ratio of domestic border price to export parity price is called the nominal protection coefficient (NPC). Thus, the NPC is the difference between the price individuals face and the country's opportunity cost of producing the commodity in question. The NPC measure, in

contrasting the observed (private) commodity price with a comparable world (social) price, can be used to indicate the impact of policy (and of any market failures) causing a divergence between the two kinds of prices. For example, a NPC-.90 shows that policies are driving down the actual market price producers are receiving to a level 10% lower than the world price (the true domestic price in the absence of policy).

NRCs are also used to assess the degree to which producer incentives are encouraged or discouraged with respect to international markets. For example, an NPC > 1 indicates that positive protection is given to the domestic output price, i.e., a positive production incentive exists. An NPC < 1 implies that producers are facing an implicit tax, since they are receiving an output price lower than the world market price. NRCs can also be calculated for input prices, such as fertilizer.

Effective Protection Coefficients (EPCs) take into account the impact of government pricing policies on inputs, capturing the incentive impact of policy on the production structure. The EPC is the ratio of the value added in domestic prices to the value added in border prices. Since the EPC includes inputs, it is potentially a more encompassing assessment of the protective structure of intervention. Like the NPC, the EPC can assume a range of numerical values. Policy interpretation is similar to that for NPC. If EPC >1, then domestic producers are receiving a greater return on their resources given intervention than they would without intervention. They are enjoying positive protection. If EPC < 1, the opposite interpretation can be made. EPCs, however, denote potential incentives or disincentives, not actual ones. The fact that producers, for example, face price levels higher than those they would have faced without intervention (a potential disincentive) does not ensure that these levels are translated into concrete resource allocation decisions. Producing the particular commodity, may still be the most profitable alternative for the individual.

7.2.4 Cost of Production

A farmer's profits from growing a given crop depend upon the level of output he is able to produce, the price he receives for his output, and the costs he incurs in producing it. One way of judging competitiveness is to compare those production costs across countries. However, caution must be used in these comparisons. Few national agencies collect farm account-based cost data. As a result, cost estimates are derived from either parastatal agency cost estimates, often based on recommended practices, or empirical work conducted by researchers.

Methods for measuring cost of production vary considerably across both countries and commodities. In some countries, costs of production are reported in terms of specific input categories. In others, costs are reported in terms of a mix of inputs and activities, where the latter might be described as land preparation or harvesting using a combination of inputs. Typically, costs of production are calculated on a per hectare basis. They are then converted to a per unit of output basis by dividing per hectare costs by yield. Yield variations due to weather, insects, and diseases can cause costs per unit of output to vary considerably from one crop season to the next. Good yields reduce per unit output costs and poor yields increase them.

123A

It is important, therefore, to have some notion of "normal" yields in judging the representativeness of production costs per unit of output in any particular growing season. Given the variability of yields, production costs are likely to vary significantly across seasons.

Costs also vary among farms and over time as a result of different intensities of input use, effectiveness in use of inputs, changes in prices of inputs, and cultural and management practices. Variation in input prices affects profits to the extent that these fluctuations are not fully offset by compensating changes in output prices. In practice, production cost data do not always distinguish the price and quantity of each input, which makes comparisons impossible.

It is common in many developing countries to subsidize the prices of some inputs, especially fertilizers and agrochemicals. Sometimes the subsidies are reflected in the market price of these inputs. In cases where parastatals control the marketing processing of crops, the cost of inputs is deducted from the prices paid to producers. Structural adjustment programs in most countries include major reductions in input subsidies. Thus, large differences in input prices occur as subsidies are reduced. For purposes of examining international competitiveness, it is often desirable to adjust production costs for these subsidies and add them to variable costs.

In most cases, variable cash costs are the only available information, since fixed costs have not been allocated to each commodity. In general, data on depreciation and imputed capital, land, and labor costs are also not available. Nonetheless, these data are important since they affect long-term profitability of the farm. Accordingly, estimates must be used.

7.2.5 Domestic Resource Costs

A comparative advantage analysis essentially seeks to answer the following question: for a given country, which alternative production activity is *relatively* most efficient, ignoring the effects of distortions in the economy resulting from government policies and market failures. Relative efficiency in production (i.e., comparative advantage) depends on three factors: 1) technology which determines production possibilities and influences rates of product transformation; 2) resource endowment which determines the value of land, labor, capital; and 3) international prices which determine the value of all other inputs and outputs. (Morris, 1989)

DRCs are calculated to measure the degree of comparative advantage that a particular production activity gives a country. The DRC ratio is calculated as the ratio between the value added to primary or non-tradable factors of production and the value added to tradable factors.[1] Primary factors include those inputs that are not usually traded internationally, such as land, labor, water, and capital. Tradables are goods that are or could be traded internationally, including fuel, machinery, chemical fertilizers and pesticides, and spare parts.

---

[1] DRC = net cost (value) of non-tradable factors/value of production (revenues)—cost of tradable inputs.

DRCs > 1 indicate an inefficient use of resources, since the value of domestic resources used in production exceeds the value of foreign exchange earned (in the case of export crops) or saved (in the case of import-substitution crops). In such cases, the country does not have a comparative advantage in production.

DRC analysis begins with the development of a crop budget for each production alternative being compared (and where relevant, includes production systems using different techniques, e.g., hand-tool vs. animal traction). The determination of profit actually received by farmers (i.e., financial profitability) is a straightforward and important initial result of the analysis. It clearly demonstrates which farmers are competitive currently and how their profits might change if price policies were changed.

Beyond financial profitability is the issue of economic efficiency or comparative advantage of the commodity system. One of the advantages of DRC methodology is that it requires opportunity costing of primary factors of production—land, labor, and capital. The opportunity cost of inputs and outputs in the production process are represented by economic or shadow prices (also called "social prices"). These prices are intended to reflect the true economic value of goods and services in the absence of government policies such as taxes, subsidies, import tariffs, quotas, and price controls. When output, inputs, and factors of production are valued at their shadow prices, the profitability figure which is calculated is said to be that of economic profitability, reflecting the returns of the economy of a given production activity.

7.2.6 The Policy Analysis Matrix

Although the coefficients described above meet the criteria of computational simplicity and minimal data requirements, they present a piece-meal picture of the extent of government policy intervention and lack intuitive expository appeal. An improved format for presenting budgetary data, proposed by Monke and Pearson, has been dubbed the "policy analysis matrix" or PAM.[2] The format of the PAM is shown in Box 7.1. Budget calculations based on physical input-output data and private prices are presented in the top row. Gross revenues and variable costs (e.g., fertilizers, seeds) are obtained by multiplying physical input-output coefficients per unit of land or water multiplied by private prices. Factor costs (labor, capital) are obtained by making similar computations.

The second row reflects the same physical data used in the private profits calculations, however, computations are done using international prices for tradables and opportunity costs ("shadow prices") for domestic resources. In PAM studies, the latter are usually obtained by adjusting domestic prices of factors for observed imperfections in factor markets such as extensive unemployment or capital rationing.

---

[2] Eric Monke and Scott Pearson, 1989.

BOX 7.1 The Policy Analysis Matrix

	Revenues	Costs		Profits
		Tradable Inputs	Domestic Factors	
Private prices	A	B	C	D
Social prices	E	F	G	H
Divergence	I	J	K	L

Private profits:	D = A - B - C	NPC =	A/E
Social profits:	H = E - F - G	EPC =	(A-B)/(E-F)
Output transfers:	I = A - E	DRC =	G/(E-F)
Input transfers:	J = B - F		
Factor transfers:	K = C - G		
Net transfers:	L = I - J - K		

The analysis of the matrix focuses on two accounting identities: the first defines private and social profitability as noted above; the second identify measures divergences that are interpreted as either policy effects or market failures. Private and social profits, shown by D and H in the right hand column, are calculated by subtracting costs from revenues for each row. The calculation of private profitability provides information on incentives to producers and on the competitiveness of commodity systems at actual market prices. The same computations using social prices provide information on comparative advantage.[3]

Policy effects and market failures, shown in the bottom row, are the difference between private and social values of outputs, inputs, and resources. These divergences provide insights into the extent of policy interventions such as taxes, subsidies, trade restrictions and exchange

[3] A positive social profit means that costs are less than value-added when all estimates are valued at their opportunity cost to the economy, i.e., the DRC is less than 1.

rate distortions. They also point to imperfections in the functioning of commodity and factor markets. The sum of the policy effects constitutes net transfers for a particular crop.[4]

As Box 7.1 illustrates, the actual data required to compute PAMs do not differ from the data needed to compute older measures such as private costs of production, NPCs, EPCs and DRCs. However, arranging the information in the form of a matrix has several important benefits. First, it synthesizes all aspects of the budget-based approach in a coherent form rather than presenting them in the form of a seemingly unconnected table of ratios. Secondly, the analogy between private profits, a historical focal point of policy makers, and social profit as a measure of comparative advantage, has immediate intuitive appeal to policy makers unaccustomed to considering efficiency in their decisions.

The disaggregation of divergences that make up the bottom row of the PAM is also helpful to policy makers in assessing the difficulty of implementing the reforms that would be needed to insure efficient resource use. The institutional problem of correcting a divergence due to an intervention in a single commodity output market, for example, is generally an order of magnitude smaller than mobilizing the investments that would be needed to correct divergences rooted in fundamental imperfections in the land, labor and capital markets. Removing tariffs on a commodity requires only a government directive. Improving the functioning of a labor market, however, may involve complex investments in infrastructure that facilitate the flow of people and information in the economy. Assessment of these implementation issues may ultimately play a decisive role in determining what changes are feasible in an existing policy regime.

The Policy Analysis Matrix (PAM) allows analysts to incorporate all information on financial and economic prices, costs, and profitability into a relatively simple framework (in a spreadsheet such as LOTUS 123) for each agricultural commodity system being analyzed. The PAM methodology is described in detail in Pearson and Monke, 1987. The matrix includes data from budgets that reflect farming enterprises, farm-to-processor marketing, processing and processor-to-wholesaler transportation, which are organized to present a comprehensive picture of the policy environment.

PAM can be used to answer the following questions:

- Does Country X currently have a comparative advantage in producing Commodity Y?

- Given expected future world market prices (in increasingly competitive world markets), should Country X be expected to have a comparative advantage in producing Commodity Y in the future?

---

[4]Net transfers are also reflected in the difference between private and social profits for the commodity system.

- If Country X does not have a comparative advantage in producing Commodity Y, what would costs and prices have to be to make it competitive?

- How would the removal of a particular policy distortion effect competitiveness?

One of the advantages of PAM framework is that it allows sensitive analysis of the effects on comparative advantage of changes in output prices, input costs, policy distortions, and other factors. Simulating changes in underlying assumptions and observing the effects on the commodity's competitiveness leads to a more dynamic assessment of competitiveness.

Some disadvantages of DRC analysis or PAM include the following:

1) Extensive data requirements.

- All production alternatives should be identified and detailed budgets developed for each. This requires extensive farm-level information.

- Actual levels of inputs and outputs are difficult to determine because of the high degree of agroclimatic variation and diverse cropping patterns practices (i.e., it is difficult to define a "representative" crop budget).

- DRC is a marginal concept, but average values are often used due to difficulty in measuring marginal values.

- Data on costs of cultivation may be scarce.

2) Static measure of comparative advantage

- This analysis is done at one point in time, so there are no input price adjustments made to changes in output price, i.e., there are no elasticities included which would indicate the sensitivity of quantity demanded of an input to a change in its own price or in the price of another input. The results of this type of analysis should not be used for projections over a long time period. (Note: sensitivity analysis can be used to overcome this disadvantage to some extent).

- In comparing DRCs across regions or countries, productivity differences across countries may be more important than producer price differences in explaining the relative profitability. Relative profitability at the farm level changes, for example, if the value and timeliness of different input subsidies are factored into the analysis and net returns to cultivation are calculated.

3) Difficulty in measuring the social opportunity cost of resources

- The true seasonal opportunity cost of labor or of capital where markets do not operate smoothly, are very difficult to estimate.

- Variations in assumed shadow prices of domestic factors and exchange rates will strongly influence DRC estimates, and make it risky to draw inferences about comparative advantage across countries.

4) Non-price Factors

- In some developing countries, non-price factors, in such investments as R&D, extension, infrastructure, and quality of management (including whether payments are made on time), may have a more significant impact on production, yields, and shifts between export and food crops than prices alone. This methodology does not analyze the institutional arrangements which shape the markets around the system.

- Risk aversion is not accounted for; for example, extremely low levels of fertilizer usage are often due to the high levels of risk involved and lack of available credit (due to lack of collateral). Finding a lack of comparative advantage in this case does not indicate the source of that lack of competitiveness, nor does it necessarily lead to logical policy implications.

5) Lack of Alternatives

- While DRC analysis facilitates comparisons across commodities, across techniques, and across regions, there may not be any real technical alternatives in a given region, or on a given soil. If there is not a choice between alternative crops, then the opportunity cost of fixed resources will be zero.

In summary, a commodity approach to the issue of competitiveness allows an examination of the relative position and performance of both the export crop and the producers with respect to world markets and producers elsewhere. An understanding of marketing margins and the costs (transportation, processing, etc.) that make up the difference between the price the producer receives and the equivalent world market price, is obtained in the derivation of the export parity price. NRCs are calculated to focus on the government policies and market failures which serve to encourage or discourage production.

At the micro-economic level, costs of production derived from farm-level data or (DRCs which incorporate cost of production information) can be used to compare competitiveness across countries (or techniques). Calculating DRCs within the PAM framework takes the above measures a step further and essentially compares the resources used to the foreign exchange

earned in producing a particular commodity in a country. DRCs thus measure the degree of comparative advantage which the production activity affords the country.

7.3 Implications for Competitiveness Study for El Salvador

Ideally, several of the above approaches are taken in a comprehensive competitiveness study (see Kristjanson et al., 1990). The starting point should be the demand side, with a commodity approach. If feasibility studies identifying high potential export commodities exist, the study can start with an examination of the international market situation for these high potential commodities (sometimes these market studies have already been undertaken as well). Second, the extent of existing costs of production and marketing data should be determined. Because cost of production data include financial prices but not economic prices, it is possible to determine whether comparative advantage exists if present policy distortions continue, but it is not possible to determine if a comparative advantage exists if those policy distortions were removed. Thus, if policy distortions are considered to be minimal (which may be the case for horticultural crops in El Salvador), calculating DRCs may not be necessary. In some cases, DRC or PAM analyses may be available (usually from research organizations such as CIMMYT for crops such as corn and wheat).

7.4 Conclusions

A complete analysis of export potential contemplates a hierarchy of issues: agnomonic feasibility, growing domestic and/or external market demand, and economic as well as non-economic competitiveness. Any oversight of one the components or faulty projections can spell disaster in an export promotion campaign. Thus, while the undertaking of a PAM is time and resource intensive, it is a crucial step in rational economic planning. In the case of El Salvador, particular attention should be paid to the non-economic factors in a export potential study. Nearby states (Guatemala, Mexico, Costa Rica, Dominican Republic) generally have the same agroclimatic endowment and low cost labor structure and they have had some success in horticultural exports. Whether El Salvador can join their ranks will probably hinge more on the land constraint issue and non-economic factors such as management and marketing talent, infrastructural factors (availability and cost of cold storage, transportation costs, frequency of air and sea links to destination markets) and the technical characteristics of the crops (degree of knowledge intensiveness, water and chemical needs, degree of perishability, availability of required specialized packaging materials, and ease of meeting photosanitary requirements in destination markets).

8. CONCLUSIONS, RECOMMENDATIONS, AND FUTURE ANALYSIS

El Salvador has liberalized its trade regime and is now more vulnerable to the effects of changes in world markets. In the near term, prospects are not good for a strong recovery of the international economy. Prices of El Salvador's primary exports are likely to remain relatively low, and demand for these exports will remain sluggish. In addition, El Salvador is likely to encounter increasing difficulty in marketing its nontraditional goods. Thus, policymakers cannot anticipate an exogenous boost from the trade account to moderate the consequences of domestic economic problems.

With respect to world agriculture, sluggish economic growth and large supplies have created low commodity prices for the past four years, especially in dollar terms. Barring an unanticipated, severe production short-fall or a large monetary disturbance, prices of agricultural commodities are likely to remain low for some time.

The economic implications of this situation for El Salvador are threefold. First, revenue from coffee, cotton, and sugar will probably continue to be depressed. Second, the costs of corn, wheat, and other agricultural imports are also likely to remain low, so the drain on government finances will be lessened. Third, an improved macroeconomic environment will make it easier to adopt policies that are conducive to development of the agricultural sector.

8.1 Conclusions

In the coming years, the vitality of the agricultural sector depends on maintenance of macroeconomic stability, higher export growth, and improvement of public sector administrative efficiency. Particularly difficult will be reconciling cuts in public expenditures with the need for key public goods and services.

The principal problem in developing much of Salvadoran agriculture is how to deal with a small resource base in an economic environment where agricultural production costs, especially in terms of the opportunity costs of labor, are being constantly pushed upward by factors outside the agricultural sector. The immediate policy implication is that growth in production will be dependent upon technological innovation that cuts per unit costs, especially labor costs.

Salvadoran agricultural income was most adversely affected by low coffee prices, an overvalued exchange rate, and tight credit policies. Curbing the fiscal deficit can help agricultural producers invest in improved technology because of lower interest rates. Investment in domestic infrastructure will lower the cost of exporting. Other actions to better coordinate export support services, especially assistance in finding foreign buyers and timely information on foreign markets, would also be a boost to the agro-export sector.

Cost components of the farm-retail price spread have climbed steadily since 1986. The present lack of reliable market information hampers farmers in optimizing production decisions.

Traders are relatively better informed. Greater market transparency through more regular information on basic grains, other products, prices, and anticipated regional supply and demand needs would help reduce these market price differences.

The price band mechanism for staple crops was implemented in El Salvador and appears to be well administered. Price variability of these crops has decreased at all levels of the marketing chain, and production of basic grains has increased since 1990, due in part to increased price stability.

Salvadoran public authorities have pursued various export promotion policies; however, some of these actions have lacked consistency and effectiveness. The limited number of firms applying for the duty drawback and the long delays in disbursement indicate that the export incentive of this program has declined drastically. Without long-term perspective and support from the public sector in diminishing the risks involved in nontraditional exports through guarantee funds and export credit insurance, the initial drive toward export diversification may sputter and die. More innovative and sophisticated trade financial instruments are needed to reduce the risks for both exporters and bankers.

As in the rest of Central America, El Salvador will benefit from participation in a renewed CACM, especially in gains of efficiency from specialization. Value-added agricultural exports to the region, given El Salvador's current agro-industrial base, should also continue to grow. However, market potential is limited, especially for agriculture. Rescue of CACM is an important first step for the region, but the greatest potential for El Salvador and the rest of Central America, especially in agriculture, lies in trade liberalization beyond the region, on a continental, hemispheric, or even larger scale, to provide an export market large enough to fully exploit the productive potential of these countries. Accession to NAFTA would be an important first step in this process.

8.2 Recommendations

The policy recommendations emerging from this study fall into three general categories: policy strategy, institutional needs, and suggestions for additional research.

8.2.1 Policy Strategy

- Formulate a clear conception of the role that agriculture is expected to play in the economy's development and integrate agricultural policy with policies for the rest of the economy to avoid conflicting policy goals.

- Continue the current price band policy mechanism. Its removal at such an early juncture will only discredit other attempts at price stability because farmers will not place their trust in programs that they are unsure will exist the next day. Furthermore, the reduction of stability caused by removal of the price band

system may lead to lower incomes for farmers, raising concerns about rural conflict.

- Improve the market information and data service, which is currently fragmented among different entities and inaccessible to many agricultural producers. This would greatly aid producers and exporters in planting and marketing decisions. The service should include information on domestic and international production and prices and specific foreign market information, could be electronically linked to similar databases in other countries, and should be widely available throughout the country.

- Continue investment in infrastructural improvements such as roads, ports, and electrical service. Privatize the telephone service to force increased efficiency and availability of telecommunications services in El Salvador.

- Reform the legislation and enforcement procedures for contract enforcement. These actions would greatly reduce the risk of producing for export for smaller or less experienced agricultural producers.

- Evaluate the structure and leadership of the Customs Service, reduce the bureaucratic procedures involved, and begin an intensive anticorruption campaign.

- Increase investment in the rehabilitation of irrigation as a least cost alternative in order to increase exports of nontraditional products.

- Increase investment to strengthen the Ministries of Agriculture, Economy, and Finance; especially in the areas of policy analysis and implementation, data management, dissemination of information, tax management, and promotion of transfer of capital and foreign investment.

- Increase investment to support an institutional coordination arrangement or plan that promotes diversification in agriculture and agroprocessing. This plan would include FUSADES, COEXPORT, FOMEX, and the Ministries of Agriculture and Economy.

- Establish a "one-stop shop" for foreign investors to facilitate the flow of foreign investment into El Salvador.

- Develop a clear vision of the goal for renewed Central American economic integration and understand its implications for Salvadoran agriculture.

- Coordinate negotiating efforts concerning CACM and NAFTA with other Central American governments and pursue these efforts strongly.

- Continue agricultural policy reforms to allow market forces to work and allow farmers to base production decisions on unregulated, nonartificial incentives. This will let success be based on true comparative advantage.

8.2.2 Institutional Needs

- The Ministry of Agriculture, with the help of USAID, should greatly strengthen its Agriculture Policy Analysis Group. Such a policy analysis group will strengthen the hand of the minister as he/she participates in the inter-agency bargaining within the government and in international negotiations for trade agreements. It will also increase the effectiveness of agricultural policy. It is especially important that the members of this group have experience and training in policy analysis, international trade, macroeconomic policy, and quantitative economic methods.

- Creation of an international commodity market analysis group is a high priority. Such a group could be located in the Dirección de Economía Agropecuaria or in the Agricultural Policy Analysis Group, or it could be a separate unit. Its task should be to study international commodity markets of direct interest to Salvadoran agriculture. This group very likely could benefit from collaboration with the International Economic Division of the USDA's Economic Research Service.

- To support the above two groups and the Ministry of Agriculture as a whole, an improved statistical service group is needed. This group would maintain data banks of interest to both policy analysts and policymakers. It would also generate data on issues that are not commonly recognized in agricultural policy analysis, including tariff structures, identification of trade interventions in both El Salvador and abroad, and equilibrium exchange rates.

- A market information system is badly needed to assist exporters in learning about the international market for their goods and the marketing regulations and practices for particular export markets.

8.3 Suggestions for Additional Research

- Knowledge of the major commodity sectors of Salvadoran agriculture needs to be generated on a continuing basis. These diagnostic studies should identify the major economic forces that affect the sector, trends in resource use and productivity, and the returns to families.

- Specific studies, quantitative if possible, on the linkages between macroeconomic policies and commodity markets are also important.

134

- Knowledge of specific commodity markets is necessary in order to carry out policy analysis of supply response and both domestic and export demand. Such knowledge is needed for the major agricultural commodities and commodity groups. The study by Ramos and others can be the departing point.

- Analytical research is needed on marketing arrangements in El Salvador. If markets are not performing efficiently, the causes of these market failures must be identified and new institutional arrangements need to be designed. The design of an improved marketing and distribution sector should be a high priority.

- Connecting Salvadoran agriculture to the international economy through border-price equivalents for domestic prices will have important income distribution consequences. For the proposed policies are to be viable means must be found to deal with the pricing problem.

- Quantitative studies should be performed to inform policymakers of the potential effects of various trade agreements, CACM and NAFTA in particular, on specific Salvadoran agricultural exports and imports. Policymakers would then be better prepared to dampen or enhance these effects as necessary.

- More knowledge is needed on the nutrient status of low-income families. There is also a need to form new institutional arrangements that would enable their nutritional status to be improved. Research is needed to determine appropriate food policy targets and the trade-offs among them.

135

REFERENCES

Alas de Franco, Carolina. 1992. "Los Desafíos de una Zona de Libre Comercio entre México y Centroamérica." *Estudios Centroamericanos.* 47:461-479.

Arriagada Stuven, Pedro. 1992. *Marco Legal e Institucional para el Desarrollo de las Exportaciones no Tradicionales.* San Salvador, El Salvador: FUSADES.

Asamblea Legislativa de El Salvador. 1993. "Ley de Fomento y Protección de la Propiedad Intelectual." Decree No. 604.

Balassa, Bela. 1961. *The Theory of Economic Integration.* Homewood, Illinois: Richard D. Irwin, Inc.

Banco Central de Reserva. *Revista Trimestral.* Publicación de la Gerencia de Estudios Económicos, various issues.

_____. *Memoria Anual de Labores,* various issues.

_____. *Boletín Económico,* various issues.

_____. 1993. Various miscellaneous reports on the Investment Fund (Fondo de Crédito para Inversiones).

_____. 1991. *Guía del Exportador.* San Salvador, El Salvador.

Banco Cuscatlán. 1992. *Memoria 1992.* San Salvador, El Salvador.

Brown, Richard N., Jr., and Nydia R. Suarez. 1991. *U.S. Markets for Caribbean Basin Fruits and Vegetables: Selected Characteristics for 17 Fresh and Frozen Imports, 1975-1987.* USDA/ERS Statistical Bulletin No. 821.

Bulmer-Thomas, Victor. 1993. "Victor Bulmer-Thomas habla sobre la Integración." *Integración en Marcha.* March-April, 1993. p. 39-44.

Buzzanell, Peter, and Ron Lord. 1993. "Sugar and Corn Sweetener: Changing Demand and Trade in Mexico, Canada, and the United States." USDA/ERS Agriculture Information Bulletin No. 655.

"Campo Experimental de Ingeniería Agronómica." 1993. *El Diario de Hoy.* July 29, p. 13.

Cappi, Carlo, Lehman Fletcher, Roger Norton, Carlos Pomareda, and Molly Wainer. 1978. "A Model of Agricultural Production and Trade in Central America." *Economic Integration in Central America,* William Cline and Enrique Delgado, eds.

Carana Corporation. 1990. "Estrategia para el Desarrollo de las Exportaciones de El Salvador." USAID Technical Report.

_____. 1989. "Investment and Non-Traditional Exports in Central America and the Dominican Republic." USAID Technical Report.

_____. 1991. *Structure and Performance of the Salvadoran Sugar Industry.* Arlington, Virginia: Carana Corporation and Sparks Companies, Inc.

CENTREX, various reports and statistical data.

"Centroamérica Busca Unirse a Libre Comercio Norteamericano." 1993. *El Diario de Hoy.* July 28, p. 6.

Cline, William R., and Enrique Delgado, eds. 1978. *Economic Integration in Central America.* Washington, D.C.: The Brookings Institution.

COEXPORT. 1993. *El Salvador: Directorio de Exportadores 1993.* San Salvador, El Salvador.

_____. 1993. *Memoria de Labores Abril 1992-Marzo 1993.* San Salvador, El Salvador.

Cook, Robert L., Carlos Benito, James Matson, David Runsten, Kenneth Shwedel, and Timothy Taylor. 1991. "Implications of the North American Free Trade Agreement for the U.S. Horticultural Sector," in *NAFTA Effects on Agriculture: Fruit and Vegetable Issues, Vol. IV.* Park Ridge, Illinois: American Farm Bureau Research Foundation.

FIDEX, various internal reports and bulletins.

Fitzgerald, E.V.K., and Edwin Croes. 1989. "The Regional Monetary System and Economic Recovery," in *Central American: The Future of Economic Integration.* George Irvin and Stuart Holland, eds. Boulder, Colorado: Westview Press, Inc.

Forsythe, Kenneth, and Liana Neff. 1993. "The U.S. Enterprise for the Americas Initiative: Support for Western Hemisphere Economic and Trade Reform." USDA/ERS Agriculture Information Bulletin No. 660.

FUSADES. 1993. "Informe Trimestral de Coyuntura No. 4, 1992," San Salvador, El Salvador.

_____. 1993. "Informe Trimestral de Coyuntura No. 1, 1993," San Salvador, El Salvador.

_____. 1991. "Estudio Sectorial de la Agroindustria Tradicional en El Salvador," Documento de Trabajo No. 24. San Salvador, El Salvador.

_____. 1991. "Estudio Sectorial de la Agroindustria No Tradicional Informal," Documento de Trabajo No. 25. San Salvador, El Salvador.

_____. 1991. "Estudio Sectorial de la Agroindustria No Tradicional," Documento de Trabajo No. 26. San Salvador, El Salvador.

_____. 1992. "Importancia del SGP y la ICC para la Economía Salvadoreña" en "Boletín Economico y Social No. 85." San Salvador, El Salvador.

_____. 1993. "Reformes a la Legislación de Propiedad Intelectual," in *El Diario de Hoy*, July 20.

_____. 1992. "Informe Trimestral de Coyuntura No. 2, 1992: Ajuste Estructural ¿Dónde estamos?" Departamento de Estudios Económicos y Sociales.

_____. 1993. "Informe Trimestral de Coyuntura No. 1, 1993: Una Estrategia para el Crecimiento." Departamento de Estudios Económicos y Sociales.

_____. "Boletín Económico y Social," various issues.

General Accounting Office, U.S. (GAO). 1991. "U.S.-Mexico Trade: Extent to Which Mexican Horticultural Exports Complement U.S. Production." GAO/NSIAD-91-94BR.

General Agreement on Tariffs and Trade (GATT). 1990. *Protocol for the Accession of El Salvador to the General Agreement on Tariffs and Trade.*

Hogan, Paul; Donald Keesing and Andrew Singer. 1991. "The Role of Support Services in Expanding Manufactured Exports in Developing Countries," EDI Seminar Series, Economic Development Institute of The World Bank. Washington, D.C.

InterAmerican Development Bank; March 1993. "El Salvador Programs", unpublished document, Washington, D.C..

International Monetary Fund. 1991. *International Financial Statistics 1991 Yearbook*, Washington, D.C.

_____. "El Salvador Recent Economic Developments 1990-92", unpublished report. Washington, D.C.

_____. "El Salvador Statistical Annexes", various issues, Washington, D.C.

Irvin, George, and Stuart Holland, eds. 1989. *Central America: The Future of Economic Integration.* Boulder, Colorado: Westview Press.

Kavoussi, R.M. 1985. "International Trade and Economic Development: The Recent Experience of Developing Countries," *Journal of Developing Areas.* 19:379-392.

Kingman-Brundage, J. and Susan Shultz. 1986. *The Fundamentals of Trade Finance.* New York: John Wiley and Sons.

Krissoff, Barry, Liana Neff, and Jerry Sharples. 1992. "Estimated Impacts of a Potential U.S.-Mexico Preferential Trading Arrangement for the Agricultural Sector." IATRC Working Paper #92-1.

Krissoff, Barry, and Jerry Sharples. 1993. "Preferential Trading Arrangements in Western Hemisphere Countries." *Agricultural and Resource Economics Review.* 22:48-58.

Kristjanson, Patricia, Mark Newman, Cheryl Christensen and Martin Abel. "Export Crop Competitiveness: Strategies for Sub-Saharan Africa". Abt Associates, APAP Technical Report No. 109. July 1990.

Krueger, A. 1978. *Foreign Trade Regimes and Development: Liberalization Attempts and Consequences.* New York: Columbia University Press.

Lal, D. and Sarath Rajapatirana. 1987. "Foreign Trade Regimes and Economic Growth in Developing Countries." *World Bank Research Observer.* 2:189-218.

Letona, R.C. 1991. "Realidad y Perspectivas del Banco de Fomento Agropecuario en El Salvador." Centro de Investigaciones Tecnológicas y Científicas (CENITEC).

Liévano, Mirna and Roger Norton. 1988. "Food Imports, Agricultural Policies and Agricultural Development in El Salvador, 1960-1987," Robert R. Nathan Associates, Washington, D.C.

Lipsey, Richard. 1991. "The Case for Trilateralism," in *Continental Accord: North American Economic Integration.* Steven Globerman, ed. Vancouver, Canada: The Fraser Institute.

López, José Roberto. 1993. "El Tratado de Libre Comercio México-El Salvador." FUSADES, Departamento de Estudios Económicos y Sociales (DEES), Documento de Trabajo No. 34, El Salvador.

Milner, C., ed. 1990. *Export Promotion Strategies.* New York: New York University Press.

Ministerio de Agricultura y Ganadería (MAG), various statistical reports.

_____. 1992. *Anuario de Estadísticas Agropecuarias 1990-91*. San Salvador, El Salvador.

_____. 1993. *Anuario de Estadísticas Agropecuarias 1991-1992*. San Salvador, El Salvador.

Ministerio de Economía, various reports and statistics.

Ministerio de Hacienda, various reports and statistics.

Ministerio de Planificación y Coordinación del Desarrollo Económico y Social, various internal reports.

Morris, Michael. "Determining Comparative Advantage Through DRC Analysis: Guidelines Emerging from CIMMYT's Experience". CIMMYT Economics Program, Working Paper. July 1989.

Muchnik, Eugenia and Marcela Allue. 1991. "The Chilean Experience with Agricultural Price Bands," *Food Policy*, February, 1991, p. 67-73.

Mundlak, Yair and Donald F. Larson. 1992. "On the Transmission of World Agricultural Prices," *The World Bank Economic Review*. 6:399-422.

Nathan Associates Inc. and Louis Berger International, Inc. 1992. "Export and Investment Promotion; Sustainability and Effective Service Delivery, Volume 1: Synthesis of Findings from Latin America and The Caribbean," AID Program and Operations Assessment Report No. 2, AID/CDIE, Washington, D.C.

Norton, Roger D. 1990. "An Assessment of the Recent Agricultural Policy Reforms in El Salvador," USAID/El Salvador.

_____. 1987. "Agricultural Issues in Structural Adjustment Programs," FAO, Economic and Social Development Paper No. 66, Rome.

_____. 1986. "The Role of Credit in Colombian Agriculture," Report prepared for the Latin American and Caribbean Office of the World Bank, Washington, D.C.

Núñez, Rubén D.; and William Loehr. 1991. "El Salvador: An Assessment of the Impact of Recent Policy Changes on Agriculture," APAP II Technical Report No. 127, Abt Associates Inc., Prepared for Agricultural Policy Analysis Project, Phase II (APAP II), AID Contract No. DAN-4084-Z-00-8034-00.

Orellana Merlos, Carlos. 1993. "El Nuevo Modelo de Integracion Centroamericana y la Armonizacion Regional de Politcas Macroeconomicas." *Politica Economica.* No. 16.

Pearson, S. and E. Monke. *Using the Policy Analysis Matrix to Monitor and Evaluate the Rural-Urban Marketing Program.* Food Policy Research Institute, Stanford University, Stanford, CA. June 1988.

Pérez, Mauricio. 1992. *Efectos del Tratado de Libre Comercio de America del Norte sobre el Acceso de las Exportaciones Agropecuarias de Centroamérica al Mercado de los Estados Unidos.* Instituto Interamericano de Cooperación para la Agricultura, Unidad Regional de Asistencia Técnica.

Quezada, Norberto A. 1990. "Chile: Efectos de la Banda de Precios de Importación de Trigo," paper presented at the Conference Asociación de Latinoamérica y del Caribe de Economistas Agrícolas, Cartagena, Colombia.

Ramos, Hugo H.; Frederick Worman y Hugo Cornelius. 1992. "Estudio de Respueta de la Producción de Granos Básicos en El Salvador," prepared for USAID/DAN-4144-B-00-6002-00, Delivery Order No. 10, Posthharvest Grain Systems, Kansas State University.

Rhee, Y.W. 1985. "Instruments for Export Policy and Administration: Lessons from the East Asian Experience," World Bank Staff Working Papers, No. 725. Washington, D.C.

Samayoa Urrea, O. 1989. "Políticas de Desarrollo de las Exportaciones de Productos No Tradicionales en Centroamérica," Secretaría Permanente del Tratado General de Integración Económica Centroamericana, Guatemala City, Guatemala.

Segovia, A. and William Pleitez. 1990. "Política de Promoción de Exportaciones No Tradicionales de El Salvador a Terceros Mercados en la Década de los Ochenta," *Cuaderno de Investigación No. 4, Centro de Investigaciones Tecnológicas y Científicas (CENITEC).* San Salvador, El Salvador.

Seligson, Mitchell A. 1993. "A Profile of the Landless, Land Poor and Unemployed Agricultural Populations in El Salvador, 1991-1992," Report to USAID/El Salvador under contract with Abt Associates, Inc.

Spreen, Thomas H., Ronald P. Muraro, and Gary F. Fairchild. 1991. "Analysis of the Impact of the North American Free Trade Agreement on the U.S. Citrus Industry," in *NAFTA Effects on Agriculture: Fruit and Vegetable Issues, Vol. IV.* Park Ridge, Illinois: American Farm Bureau Research Foundation.

Tech International, Inc., Louis Berger International, Inc., and Edificaciones Choussy, S.A. de C.V. 1990. "Infrastructure Sector Assessment. Final Report, Volume II, Transportation," presented to USAID/El Salvador.

U.S. Department of Agriculture (USDA), Economic Research Service (ERS). 1991. *Foreign Agricultural Trade of the United States (FATUS), Calendar Year 1991.*

_____, Economic Research Service (ERS). 1992. *Agriculture in a North American Free Trade Agreement: Analysis of Liberalizing Trade between the United States and Mexico.* Foreign Agricultural Economic Report No. 246.

_____. 1993. "Effects of the North American Free Trade Agreement on U.S. Agricultural Commodities."

_____, Office of International Cooperation and Development. 1984. "Lista de Frutos y Vegetales Admisibles en los Estados Unidos Procedentes de Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, y Panama." Presented at the Agricultural Marketing Workshop for the Caribbean Basin, Sept. 23-27, 1984, Miami, Florida.

Valdés, Alberto. 1992. "Price Bands for Agriculture Price Stabilization: The Chilean Experience," in *Gaining Momentum: Economywide and Agricultural Reform in Latin America.* The World Bank, Washington, D.C.

Vanegas, Manuel, Sr. 1986. "Meeting World Food Objectives: Towards an Improved Trade Environment in Agriculture," *Food Policy.* 2:205-215.

_____. 1988. "Economic Adjustement and Its Effects on Selected Central America's Agricultural Exports," background Paper prepared for the Selected Papers Competition of the International Conference for the UN/World Food Council/14th. Ministerial Session, Rome, Italy.

_____. 1991. "Policy Reforms and Supply Response: Experiences from Africa and Latin America," poster paper presented at the 21th International Conference for the International Association of Agricultural Economists, Tokyo, Japan.

Wells, Louis T.; Jr and Alvin Wint. 1991. "Facilitating Foreign Investment: Government Institutions to Screen, Monitor, and Service Investment from Abroad," Occasional Paper No. 2, Foreign Investment Advisory Service, The World Bank, Washington, D.C.

Wenner, M., J. Holtzman, and Gary Ender. 1993. "Primer on Appropriate Policy Regimes and Institutional Support Needed for Agribusiness Promotion." Washington, D.C.: Abt Associates Inc. APAP II Technical Report, forthcoming.

Wenner, Mark D., and Rafael Umaña Amaya. 1993. "Agricultural Credit Market Assessment in El Salvador." Washington, D.C.: Abt Associates Inc. APAP II Technical Report.

Whalley, John. 1992. "Expanding the North American Free Trade Agrement." Institute for Policy Reform, Washington, D.C. Working Paper IPR42.

World Bank. 1980. "The Changing Nature of Export Credit Finance and Its Implications for Developing Countries," World Bank Staff Working Paper No. 409. Washington, D.C..

_____. 1992. "Trade Policy Reforms Under Adjustment Programs," World Bank Operations Evaluation Study, Washington, D.C.

_____. 1990. "Trade Liberalization and Economic Integration in Central America," Report No. 7625-CAM, Washington, D.C..

Zepeda Bermudez, G. 1989. "Estudio Sobre Los Obstáculos al Comercio en Centroamérica." Secretaría Permanente del Tratado General de Integración Económica Centroamericana, Guatemala City, Guatemala.

APPENDIX A

CHAPTER 2 SUPPLEMENTAL TABLES AND FIGURES

Appendix A.1:
Selected Macroeconomic Indicators, El Salvador, 1980-92

	Units	1980-85	1986	1987	1988	1989	1990	1991	1992
Gross Domestic Product (a)	Millions of US$	3,915.0	4,160.9	4,432.2	4,683.2	4,956.1	5,414	5,970	6,447
Per Capita Income	US 1988 Dollars	1,051	1,046	1,054	1,051	1,048	1,059	1,077	1,108
Merchandise Exports	Millions US$ (FOB)	699	778	590	611	498	582	588	597
Merchandise Imports	Millions US$ (FOB	748	902	939	967	1,090	1,180	1,294	1,426
Merchandise Balance	Millions US$ (FOB)	-49	-124	-349	-356	-592	-600	-706	-839
Remittances	Millions US$	103	134.5	168.7	194.4	203.7	322.1	517.9	620
Official Aid	Millions US$	203	225.5	380.1	289.4	284.2	225	180.3	228.3
Outstanding External Debt at end of year	Millions US$	1,181.2	1,254.5	1,312.1	1,860.2	2,115.4	2,131	2,221.3	2,382.3
Total Export/GDP	Percent	19.0	18.1	13.3	13.0	10.0	10.8	9.8	9.1
Real GDP Growth Rate (Constant 1962 Colones)	Percent	-12.9	0.6	2.7	1.6	1.1	3.4	3.5	4.5
Inflation Growth Rate	Percent	13.1	30.4	19.6	18.2	23.5	19.3	9.8	19.9
Gross Domestic Investment/GDP	Percent	14.1	13.3	12.4	12.8	15.3	11.8	13.8	15
Fiscal Deficit/GDP (excluding donations)	Percent	11	3.9	4.4	4.5	6.8	2.7	4.4	4.8
Fiscal Deficit/GDP (including donations)	Percent	9.2	2.3	1.8	2.5	5.2	0.8	2.5	2.7
Average Annual Lending Interest Rate (b)	Percent	13	15	15	17	20	16	18.3	18.38
Terms of Trade (1980=100)	Index	181.2	177.6	131.9	144.7	125.7	117.2	119.9	108.3
Nominal Exchange Rate	Colones per US$	2.5	5	5	5	5.6	7.6	8.03	8.5

Sources: Banco Central de Reserva, El Salvador, Revista Trimestral, several issues; IMF Financial Statistics and InterAmerican Development Bank El Salvador Socioeconomic Report.

Note: Interest rates were liberalized in March of 1992. (a) dollar GDP calculated using constant purchasing power parity. (b) set preferential interest rate for 1 year production loan by small coffee, basic grains, microenterprise, and exports outside Central America.

145

Appendix A.2 Change in Agriculture Value Added in Constant 1962 Colones (Percent)

Item	1987	1988	1989	1990	1991	1992 (b)	Avg. '86-89	Avg. '90-92
Agriculture	2	-1	0.5	7.4	0.0	6.7	0.4	3.2
Exports:	5	-19	-1	19	-1	5	-4.99	7.99
Coffee	7	-19	1	21	-2	3	-3.43	7.19
Cotton	-9	-16	-29	-29	-24	0	-18.01	-17.67
Sugar Cane	-7	-20	-5	24	19	20	-10.58	20.86
Grains:	-2	29	-3	5	-8	22	8.02	6.67
Corn	32	3	-1	2	-16	25	11.39	3.81
Beans	-51	133	-22	30	16	12	20.26	19.25
Rice	-21	36	11	-9	6	12	8.81	2.89
Sorghum	-81	496	-2	11	-2	34	137.54	14.35
Other:	-2	-1	1	2	7	2	-0.62	3.73
Cinnamon	2	0	-2	0	0	0	-0.15	0.00
Tobacco	-11	5	-12	-3	4	0	-6.02	0.04
Cottonseed	-13	-17	-28	-33	-13	-14	-19.36	-20.04
Hemp	9	-16	14	2	15	0	2.43	5.56
Kenaf	30	2	38	0	15	0	23.09	5.13
Others (a)	-2	1	2	4	6	3	0.14	4.37
Livestock	6	4	4	1	1	1	4.51	1.12
Forestry	0	-1	1	1	1	1	0.00	1.02
Fisheries	-8	4	-14	-17	0	3	-6.01	-4.56
Apiculture	13	-4	-9	3	6	3	0.42	4.27
Poultry	2	6	5	2	4	3	4.27	3.20

Source: Banco Central de Reserva, El Salvador, Revista Trimestral. Several Issues.

Notes: (a) Included Sesame, balsam, coconut, fruits and vegetables; (b) Preliminary figures.

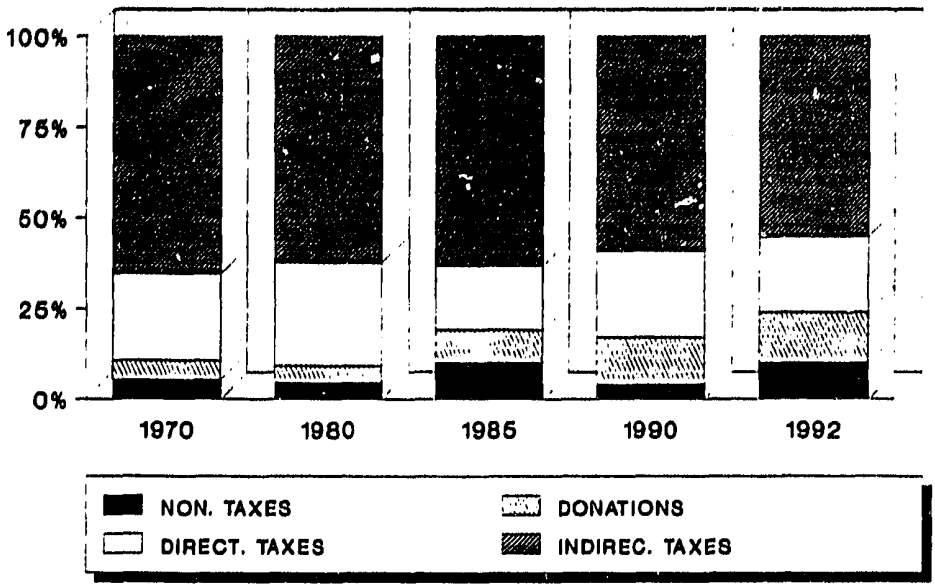
Appendix A.3 Gross Domestic Product by Sectors, El Salvador, 1980-92 (Constant 1962 colones)

Year	Agriculture	Manufacturing	Commerce	Government	Others (a)	Total
1980	841.1	586.2	625.0	341.9	895.1	3,289.3
1985	742.8	515.4	489.5	411.6	834.3	2,993.6
1986	719.7	528.3	491.0	430.1	843.4	3,012.5
1987	734.7	544.1	497.9	447.4	869.4	3,093.5
1988	727.7	560.5	500.1	462.6	892.9	3,143.8
1989	731.1	574.4	516.9	457.7	896.9	3,177.0
1990	785.5	591.6	533.0	464.8	910.0	3,285.0
1991	785.1	620.4	555.5	479.2	960.8	3,401.0
1992	837.5	657.6	579.0	471.5	1,011.4	3,557.0
			PERCENTAGE			
RG[b],90/92	3.2	5.3	4.1	0.7	5.3	4.0
RG,85/90	0.9	2.8	1.7	2.4	1.8	1.8
CV[c],90/92	3.8	5.3	4.1	1.5	5.3	4.0
CV,85/90	3.2	5.2	3.4	4.7	3.5	3.5

Source: BCR, Revista Trimestral, various issues.

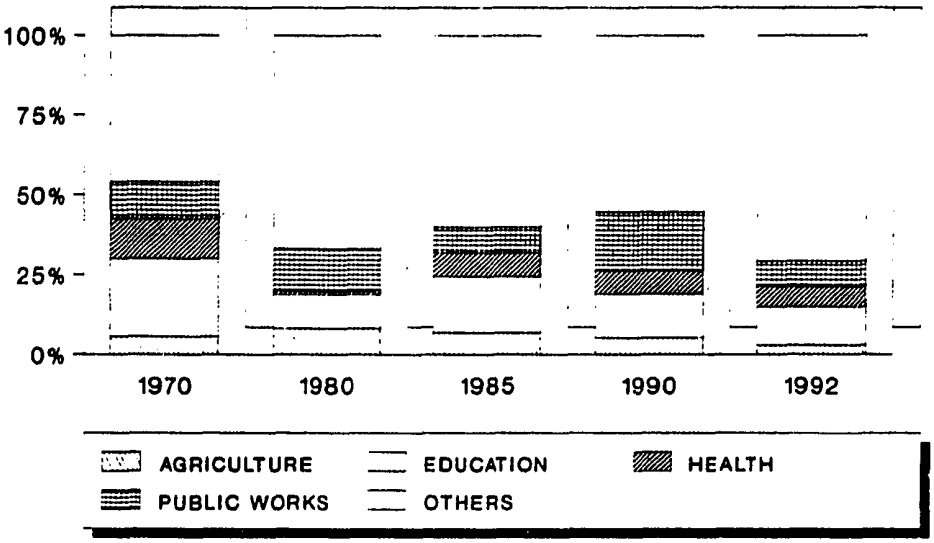
Notes:
a. Including: mining, construction, public utilities, transport, financial sector, housing, services.
b. RG = annual rate of growth
c. CV = coefficient of variation

Appendix A.4a: Structure of Central Government Revenue, El Salvador, 1970-92



Source: BCR and Ministerio de Hacienda, Detalle del Presupuesto de Funcionamiento, several issues

Appendix A.4b: Structure of Central Government Total Expenditure, El Salvador, 1970-92



Source: BCR and Ministerio de Hacienda, Detalle del Presupuesto de Funcionamiento, several issues

NOTE: Others include: Trabajo y prevision Social, ramo de relaciones exteriores, Interior, Defensa Seguridad Publica, etc

140

Appendix A.5 Legal Tariff Rates for Agricultural Products as of January 1992

Commodity Group		Previous (%)	New (%)
Grains:	Wheat	20	Price band
	Yellow corn	20	Price band
	White corn	20	10
	Sorghum	20	Price band
	Polished Rice	20	Price band
Meats:	Red meat	25	20
	Fish	25	20
	Poultry	25	20
	Offal	25	20
	Meat/seafood preparations	30	20
Diary:	Whole milk	5	10
	Low fat milk	5	10
	Other milk products	25	20
Beverages:	Green coffee	30	20
	Prepared coffee products	30	20
	Tea	30	20
	Mate	30	20
Fats and Oils:	Lard	25	20
	Other animal fats	25	20
	Margarine	25	20
	Vegetable oils	25	20
Flours and bakery goods:	Rye, oat, wheat flours	25	20
	Breads	25	20
	Pastries	25	20
	Biscuits	25	20
Fruits and Vegetables:	Potatoes for planting	25	20
	Tomatoes	25	20
	Mushrooms	25	20
	Edible fruits	30	20
	Legumes	25	20
	Cassava	25	20

149

Appendix A.5 (Cont.)

Commodity Group		Previous (%)	New (%)
Sweeteners and Others:	Cotton lint	30	20
	Tobacco	30	20
	Sugar beets	25	20
	Pure sucrose	0	5
	Chocolate	30	20
	Cut flowers	30	20

SOURCE: USDA, Foreign Agricultural Service, "El Salvador Tariff Redution Report," January 20, 1992.

Appendix A.6 Direction of Nontraditional Exports, El Salvador, 1980-92 (Million US Current Dollars, FOB)

Year	Total Non-Traditional	Exports to CACM	%	Exports to Other Markets	%
1980	349.3	295.8	84.5	53.5	15.5
1985	169.4	95.7	56.5	73.7	43.5
1986	161.3	91.0	56.4	70.3	43.5
1987	204.5	119.6	58.5	84.9	41.5
1988	215.3	139.8	64.9	75.5	35.1
1989	244.7	160.6	65.6	84.1	34.4
1990	285.3	175.0	61.3	110.3	38.7
1991	315.9	193.7	61.3	122.2	38.7
1992	373.1	248.0	66.5	125.1	33.5
RG(80/90)%[a]	- 1.5	- 5.0	---	7.0	---
RG(90/92)%	13.4	17.4	---	6.3	---

Note: a. RG = annual rate of growth

Appendix A.7 Non-traditional Export Groups, El Salvador, 1987-92

Product Group	1987	1988	1989	1990	1991	1992 (a)	1989-92 Rate of Growth %
			US$ Million				
Animal-Related	6.0	5.2	6.4	6.3	6.5	6.7	1.7
Plant-related	14.8	13.9	12.6	21.6	19.9	23.5	16.0
Processed foods	9.2	13.9	14.7	17.1	21.6	26.2	19.7
Others	174.5	182.3	211.0	240.0	267.9	323.9	11.0
Total	204.5	215.3	244.7	285.3	315.9	380.3	14.2

Source: Banco Central de Reserva, Revista Trimestral, various issues.

Note: a. Preliminary figures

APPENDIX B

CHAPTER 3 SUPPLEMENTAL TABLES AND FIGURES

Appendix B.1: Merchandise Exports Value by Groups, El Salvador, 1980-92 (Million US Current Dollars, FOB)

Year	Coffee	Other Traditional Products	Non-Traditional	Total
1980	615.2	110.8	349.3	1,075.3
1985	463.7	62.0	169.4	695.1
1986	546.8	46.8	161.3	754.9
1987	351.5	34.9	204.5	590.9
1988	358.0	35.5	215.3	608.8
1989	**228.6**	**24.3**	**244.7**	**497.6**
1990	259.0	31.3	285.3	582.0
1991	219.5	52.6	315.9	588.0
1992	160.0	57.2	380.3	597.5
RG%(80/90)	- 7.0	-14.7	-1.5	-5.4
RG%(85/90)	-15.7	-15.3	11.2	-6.2
RG%(90/92)	-22.0	36.3	13.4	[illegible].3

Appendix B.2: Value Added in the Agricultural Sector, El Salvador, 1970-92 (Constant 1962 prices)

Item	1980	1985	1989	1990	1991	1992 (e)
	Million 1962 Colones					
A. Major Crops (a)	509.4	411.4	360.6	410.5	397.6	441.9
1. Coffee	292.4	231.3	189.3	228.6	223.2	230.3
2. Grains (b)	128.3	122.7	141.6	149.0	137.7	169.5
B. Livestock and Poultry (c)	219.3	218.6	255.1	263.8	267.3	272.9
C. Others (d)	112.3	112.8	115.4	111.2	120.2	122.7
D. Total	841.1	742.8	731.1	785.5	785.1	837.5

Source: BCR, El Salvador, Revista Trimestral, several issues.

Notes:
(a) Coffee, cotton, sugar cane and grains
(b) Corn, sorghum, rice and beans
(c) Beef, pork, milk, and poultry
(d) Other crops, forestry and fisheries
(e) Preliminary

Appendix B.3: Production, Area and Yield of Coffee, El Salvador, 1970-93

Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	2973,0	207.0	14.4
1971-72	3144.0	209.0	15.0
1972-73	3206.0	212.0	15.1
1973-74	2750.0	217.0	12.7
1974-75	3466.0	217.0	16.0
1975-76	3587.0	220.0	16.3
1976-77	3082.0	224.0	13.8
1977-78	3187.0	239.0	13.3
1978-79	3522.0	265.8	13.3
1979-80	4125.0	265.8	15.5
1980-81	4094.0	265.8	15.4
1981-82	3825.0	265.8	14.4
1982-83	3796.0	265.8	14.3
1983-84	3360.0	251.0	13.4
1984-85	3246.0	246.1	13.2
1985-86	3235.0	239.1	13.5
1986-87	3004.0	234.2	12.8
1987-88	3250.0	240.7	13.5
1988-89	2043.0	245.7	8.3
1989-90	3570.0	250.0	14.3
1990-91	3300.0	250.0	13.2
1991-92	3248.0	266.0	12.2
1992-93 (a)	3300.0	257.0	12.8
RG/70-93 (%)	-0.1	0.8	-0.9

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria, several issues.

Notes: a. estimates

155

Appendix B.4: Production, Area and Yield of Cotton in El Salvador, 1970-93

Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	3281.6	89.3	36.7
1971-72	4118.0	103.8	39.7
1972-73	4163.9	121.8	34.2
1973-74	4861.0	135.8	35.8
1974-75	4701.4	125.9	37.3
1975-76	3650.0	105.7	34.5
1976-77	3965.5	113.3	35.0
1977-78	4705.9	142.1	33.1
1978-79	4407.8	146.1	30.2
1979-80	4046.8	120.8	33.5
1980-81	2542.0	83.2	30.6
1981-82	2464.6	75.0	32.9
1982-83	2370.0	69.8	34.0
1983-84	1680.0	52.5	32.0
1984-85	1737.0	53.3	32.6
1985-86	1200.0	38.9	30.8
1986-87	661.1	18.8	35.1
1987-88	575.1	19.9	28.9
1988-89	626.0	18.3	34.2
1989-90	346.1	14.4	24.0
1990-91	261.3	8.3	31.4
1991-92	232.1	6.2	37.7
1992-93 (a)	259.3	7.0	37.0
RG/70-93 (%)	-14.8	-13.8	-1.0

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria, several issues.

Notes: a. estimates

Appendix B.5: Production, Area and Yield of Sugar, El Salvador, 1970-93

Year	Production ('000/ST)	Area ('000/Mz)	Yield (ST/Mz)
1970-71	1671.9	28.0	59.7
1971-72	2010.0	32.4	62.0
1972-73	2058.6	33.7	61.1
1973-74	2606.5	43.3	60.2
1974-75	2843.5	47.4	60.0
1975-76	2814.6	48.0	58.6
1976-77	3188.6	49.6	64.3
1977-78	3143.7	49.1	64.0
1978-79	2984.0	47.7	62.6
1979-80	2194.8	39.0	56.3
1980-81	1982.7	38.0	52.2
1981-82	2117.5	39.2	54.0
1982-83	2711.4	45.0	60.3
1983-34	3119.1	48.6	64.2
1984-85	3212.7	52.0	61.8
1985-86	3429.2	55.2	62.1
1986-87	3184.6	58.8	54.2
1987-88	2526.9	48.3	52.3
1988-89	2290.3	41.3	55.5
1989-90	2939.6	45.6	64.5
1990-91	3582.6	54.7	65.5
1991-92	4065.2	68.5	59.3
1992-93 (a)	4420.0	68.0	65.0
RG/70-93 (%)	2.3	2.4	-0.5

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria, several issues.

Notes: a. estimates

157

Appendix B.6: Production, Area and Yield of Corn, El Salvador, 1970-93

Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	7,884.6	294.2	26.8
1971-72	8,198.2	300.3	27.3
1972-73	5,153.3	292.8	17.6
1973-74	8,820.1	287.3	30.7
1974-75	7,673.3	302.1	25.4
1975-76	9,566.2	351.7	27.2
1976-77	7,459.4	334.5	22.3
1977-78	8,255.3	349.8	23.6
1978-79	11,025.9	377.6	29.2
1979-80	11,355.8	394.3	28.8
1980-81	11,467.5	417.0	27.5
1981-82	10,862.5	395.0	27.5
1982-83	9,002.4	341.0	26.4
1983-84	9,633.0	345.0	27.9
1984-85	11,461.5	347.7	33.0
1985-86	10,769.2	362.1	29.7
1986-87	9,501.3	368.1	25.8
1987-88	12,592.6	398.5	31.6
1988-89	12,970.2	402.8	32.2
1989-90	12,788.3	394.7	32.4
1990-91	13,084.5	402.6	32.5
1991-92	10,962.8	438.0	25.0
1992-93 (a)	13,716.8	446.8	30.7
RG/70-93 (%)	2.7	1.62	1.05

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria.

Notes: a. estimates

158

Appendix B.7: Production, Area and Yield of Sorghum, El Salvador, 1970-93

Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	3,199.7	177.4	18.0
1971-72	3,400.0	180.0	18.9
1972-73	3,170.0	186.4	17.0
1973-74	3,400.0	170.0	20.0
1974-75	2,850.0	182.0	15.7
1975-76	3,800.0	189.1	20.1
1976-77	3,399.2	178.5	19.0
1977-78	3,285.0	188.8	17.4
1978-79	3,517.7	195.4	18.0
1979-80	3,485.0	205.0	17.0
1980-81	3,040.9	170.7	17.8
1981-82	2,950.3	165.0	17.9
1982-83	2,700.0	170.0	15.9
1983-84	2,677.1	158.0	16.9
1984-85	3,053.9	166.0	18.4
1985-86	2,882.8	163.4	17.6
1986-87	3,206.8	171.5	18.7
1987-88	564.2	178.7	3.2
1988-89	3,332.7	174.2	19.1
1989-90	3,249.7	170.9	19.0
1990-91	3,491.8	184.7	18.9
1991-92	3,540.9	175.9	20.1
1992-93 (a)	3,573.0	176.9	20.2
RG/70-93 (%)	-0.9	-0.2	-0.7

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria.

Note: a. estimates

159

Appendix B.8: Production, Area and Yield of Rice, El Salvador, 1970-93

Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	961.6	17.0	56.6
1971-72	1192.3	20.9	57.0
1972-73	774.6	15.7	49.3
1973-74	809.5	13.6	59.5
1974-75	697.7	15.9	43.9
1975-76	1320.0	24.2	54.5
1976-77	776.1	19.7	39.4
1977-78	712.6	17.8	40.0
1978-79	1104.5	19.9	55.6
1979-80	1266.2	21.1	60.0
1980-81	1320.0	24.0	55.0
1981-82	1089.8	19.8	55.0
1982-83	770.0	16.0	48.1
1983-84	940.0	18.0	52.2
1984-85	1376.0	21.9	62.8
1985-86	1497.6	24.7	60.6
1986-87	1020.4	17.2	59.3
1987-88	914.6	16.7	54.8
1988-89	1245.9	19.7	63.2
1989-90	1385.2	22.2	62.4
1990-91	1341.1	20.4	65.7
1991-92	1335.6	23.3	57.3
1992-93 (a)	1440.0	24.0	60.0
RG/70-93 (%)	1.1	2.2	1.0

SOURCE: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria, several issues.

Note: a) estimates

160

Appendix B.9: Production, Area and Yield of Beans, El Salvador, 1970-93

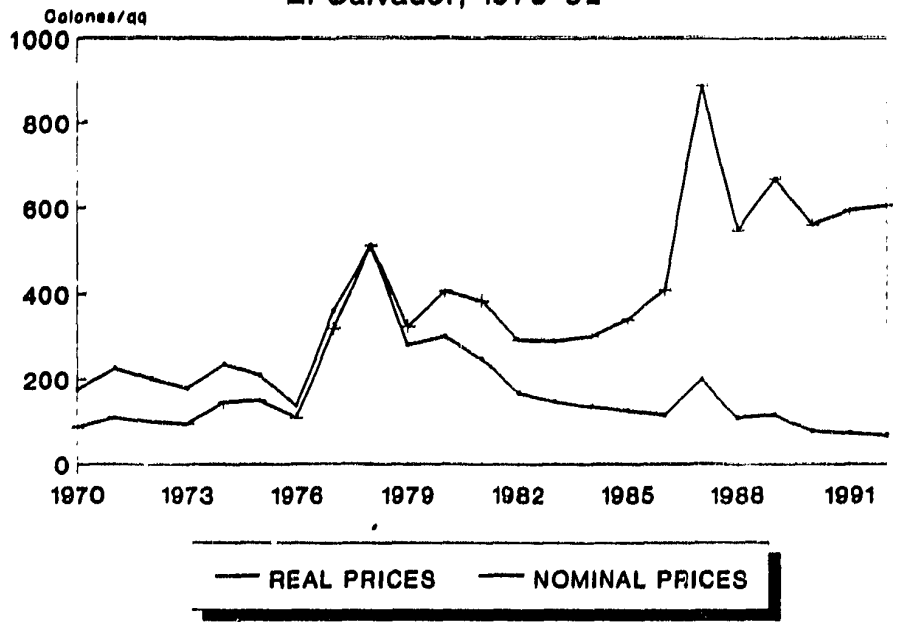
Year	Production ('000/qq)	Area ('000/Mz)	Yield (qq/Mz)
1970-71	649.5	51.6	12.6
1971-72	750.0	57.0	13.2
1972-73	595.7	56.9	10.5
1973-74	814.7	64.4	12.6
1974-75	732.2	73.5	10.0
1975-76	861.8	79.8	10.8
1976-77	870.1	75.5	11.5
1977-78	733.5	75.1	9.8
1978-79	933.0	74.0	12.6
1979-80	1011.3	78.7	12.9
1980-81	866.5	75.0	11.6
1981-82	831.8	71.0	11.7
1982-83	830.0	79.4	10.5
1983-84	918.3	80.5	11.4
1984-85	1056.0	82.5	12.8
1985-86	751.2	83.3	9.0
1986-87	1093.9	87.1	12.6
1987-88	531.0	89.3	5.9
1988-89	1240.0	96.1	12.9
1989-90	968.9	91.6	10.6
1990-91	1145.4	89.5	12.8
1991-92	1461.6	110.6	13.2
1992-93 (a)	1481.0	113.9	13.0
RG/70-93 (%) 2.5	2.60 -0.1		

Source: Ministerio de Agricultura y Ganadería; Unidad de Análisis de Políticas Agropecuarias. El Sector Agropecuario en Cifras y Gráficas, junio 1992, y Memoria Agropecuaria Estadística, Unidad de Economía Agropecuaria, several issues.

Notes: a. estimates

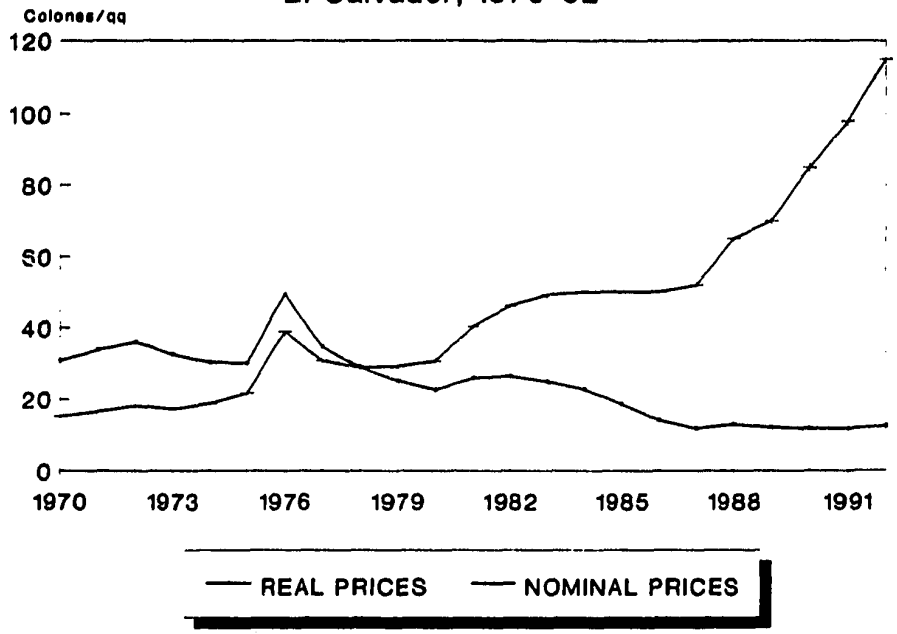
161

Appendix B.10a: Nominal and Real Coffee Producer Prices, El Salvador, 1970-92



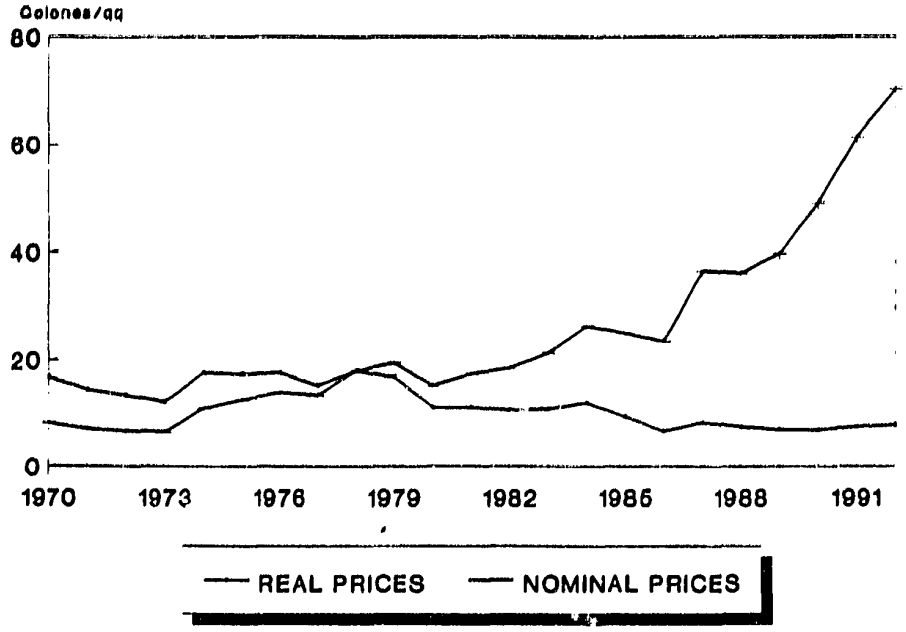
Source: Ministry of Agriculture

Appendix B.10b: Nominal and Real Sugar Producer Prices, El Salvador, 1970-92



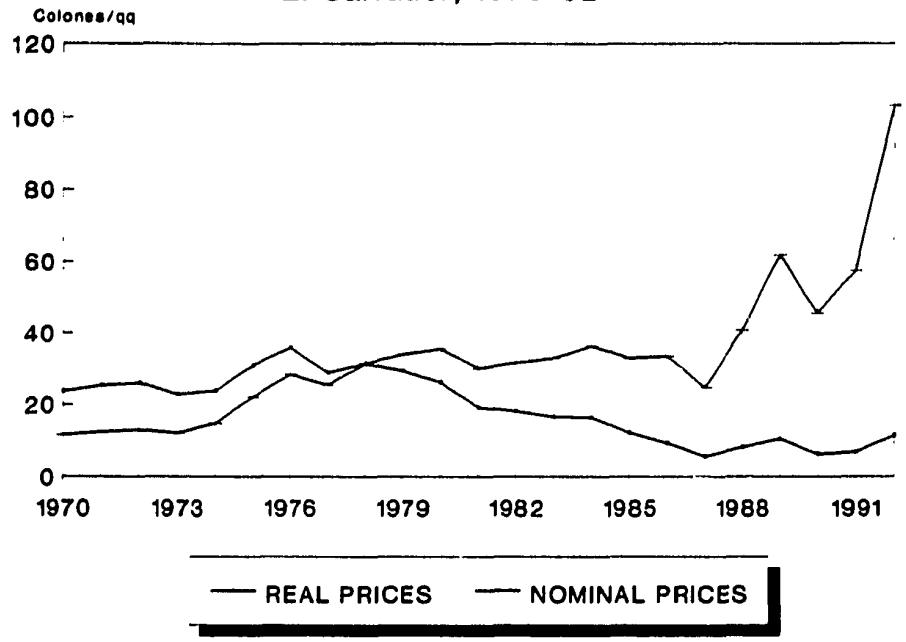
Source: Ministry of Agriculture

Appendix B. 11a: Nominal and Real Corn Producer Prices, El Salvador, 1970-92



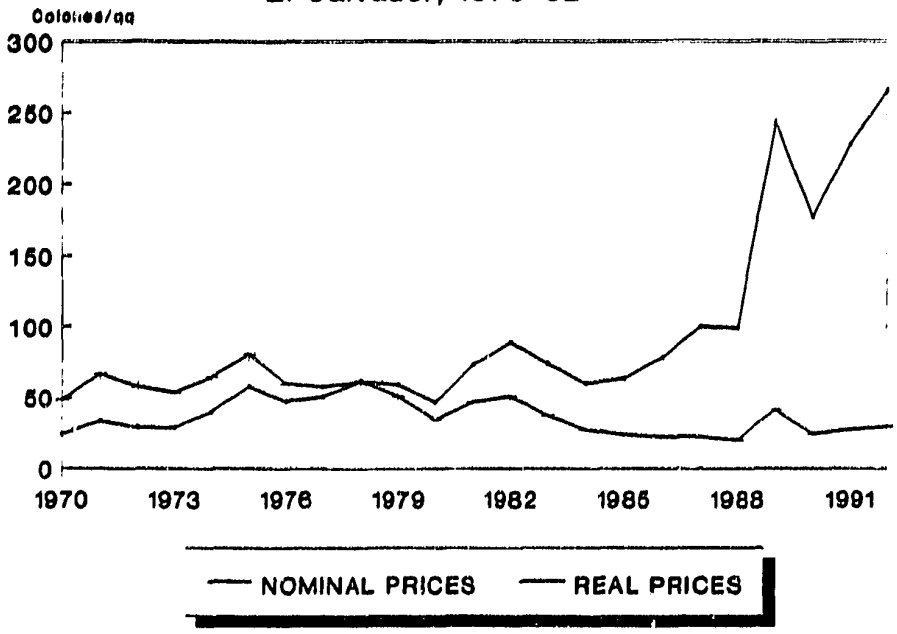
Source: Ministery of Agriculture

Appendix B.11b: Nominal and Real Rice Producer Prices, El Salvador, 1970-92



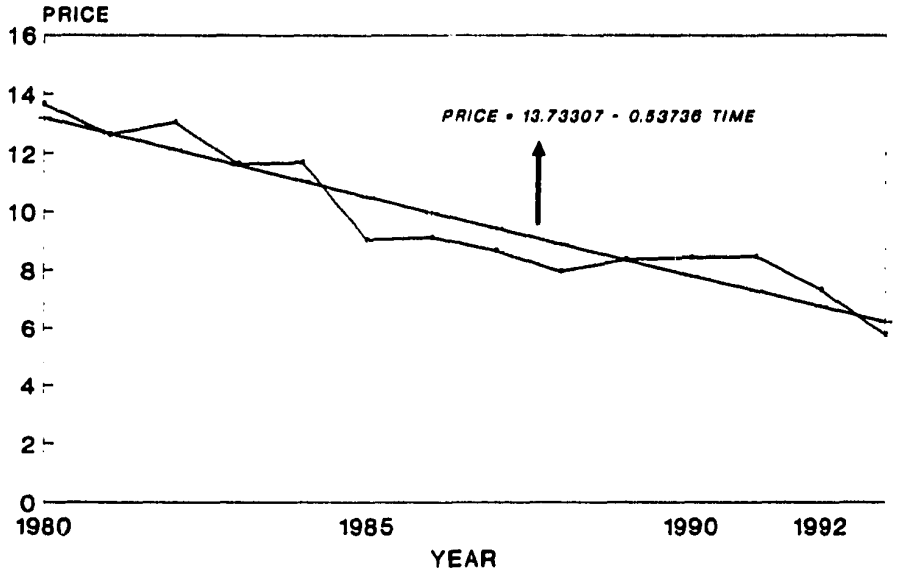
Source: Ministery of Agriculture

Appendix B.12a: Nominal and Real Bean Producer Prices, El Salvador, 1970-92

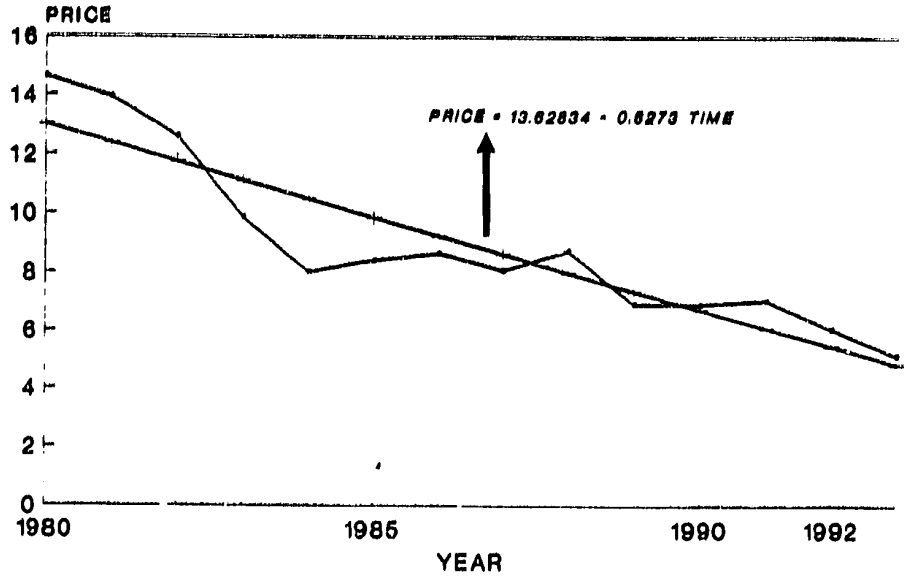


Source: Ministery of Agriculture

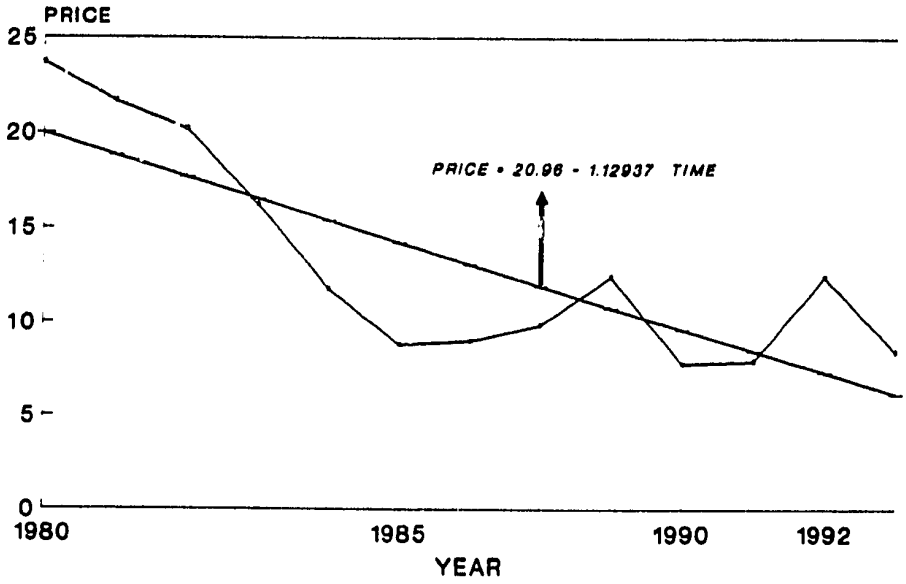
Appendix B.12b: Linear Trend of Real Producer Prices for Corn, El Salvador 1980-93.



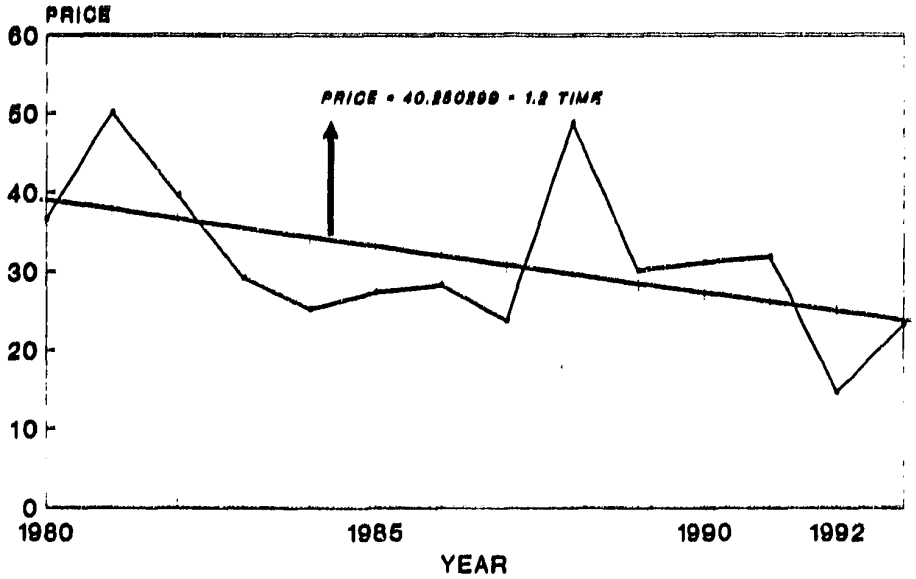
Appendix B.13a:
Linear Trend of Real Producer Prices for Sorghum, El Salvador 1980-93



Appendix B.13b:
Linear Trend of Real Producer Prices for Rice, El Salvador, 1980-93



APPENDIX B.14:
Linear Trend of Real Producer Prices for Beans, El Salvador, 1980-93



APPENDIX C

CHAPTER 6 SUPPLEMENTAL TABLES

APPENDIX C.1 EXPORTS AMONG CENTRAL AMERICAN REGION, 1989-1992

	1989	*1990*	*1991*	*1992*
Guatemala to:				
Costa Rica	70.7	73.7	75.3	84.4
El Salvador	129.8	144.2	154.7	173.2
Honduras	35.8	38.0	43.9	48.2
Nicaragua	12.6	32.3	50.1	55.2
Total	248.9	288.2	324.0	361.0
Costa Rica to:				
El Salvador	46.6	35.9	43.8	48.1
Guatemala	60.1	52.3	58.6	64.5
Honduras	15.2	18.3	18.7	20.6
Nicaragua	22.2	27.2	56.8	62.4
Total	144.13	133.7	177.8	195.6
El Salvador to:				
Costa Rica	45.0	47.6	46.9	52.5
Guatemala	114.9	103.1	88.6	97.4
Honduras	17.0	16.8	13.8	15.2
Nicaragua	3.0	9.3	10.3	11.3
Total	179.9	176.8	159.6	176.4
Honduras to:				
Costa Rica	2.0	0.8	1.2	3.0
El Salvador	11.0	13.4	14.0	15.4
Guatemala	14.2	12.0	12.5	13.8
Nicaragua	1.7	0.6	0.8	0.9
Total	28.9	26.8	28.5	33.1
Nicaragua to:				
Costa Rica	15.4	11.5	10.1	10.7
El Salvador	9.9	10.2	11.2	12.3
Guatemala	7.4	5.6	-	-
Honduras	4.5	8.3	7.6	8.4
Total	37.3	35.6	28.9	31.5
Total	639.1	661.1	718.9	797.5

Source: IMF, Direction of Trade Statistics

Note: Values are in million U.S. dollars.

APPENDIX C.2 COMPOSITION OF U.S. IMPORTS FROM CENTRAL AMERICA BY COUNTRY, 1989-1992

	1989	*1990*	*1991*	*1992*
Commodities				
Belize	43.0	44.0	35.6	58.5
Costa Rica	967.9	1006.5	1144.0	1402.0
El Salvador	943.9	237.5	302.4	383.2
Guatemala	608.3	790.9	892.3	1072.7
Honduras	456.8	486.3	552.2	780.6
Nicaragua	0.0	15.3	59.5	68.6
Panama	258.3	226.6	242.6	218.2
Total	2578.3	2807.0	3228.7	3984.0
Primary Products				
Belize	26.5	34.5	14.4	36.6
Costa Rica	448.8	444.2	505.2	563.0
El Salvador	145.1	121.4	145.6	151.1
Guatemala	426.8	542.9	503.9	539.0
Honduras	336.8	331.1	310.2	358.7
Nicaragua	0.0	14.7	57.4	63.0
Panama	162.9	121.8	115.1	108.8
Total	1546.9	1610.5	1651.9	1820.2
Apparel				
Belize	13.9	7.1	17.4	17.7
Costa Rica	327.3	383.5	440.5	590.3
El Salvador	42.3	54.1	90.4	165.9
Guatemala	131.0	192.4	335.2	457.3
Honduras	86.7	112.6	196.6	367.8
Nicaragua	0.0	0.0	1.2	3.4
Panama	52.7	61.6	65.3	50.0
Total	653.8	811.2	1146.6	1652.4
Consumer/Capital Goods				
Belize	14.6	7.5	18.0	17.3
Costa Rica	457.4	497.4	567.8	748.9
El Salvador	74.2	89.4	126.8	202.9
Guatemala	142.1	202.4	347.4	474.0
Honduras	100.2	128.1	217.3	395.2
Nicaragua	0.0	0.5	1.5	4.6
Panama	63.1	66.6	69.4	55.2
Total	851.5	991.8	1348.3	1898.7

Appendix C.3 Composition of U.S. Imports from Central America by Country, 1989-1992 (Continued)

	1989	*1990*	*1991*	*1992*
Manufactures				
Belize	15.3	8.4	18.7	18.8
Costa Rica	499.8	550.6	625.7	813.9
El Salvador	96.9	112.5	153.9	228.8
Guatemala	174.0	231.4	379.1	520.0
Honduras	116.8	149.9	236.6	416.5
Nicaragua	0.0	0.5	1.7	4.7
Panama	74.7	79.0	79.4	65.2
Total	977.4	1132.5	1495.1	2068.0
Total	6607.9	7353.0	8870.6	11423.2

Source: U.S. Department of Commerce

Note: Values are in million U.S. dollars

APPENDIX C-4 PEAK HARVEST SEASONS FOR SELECTED U.S. AND MEXICAN FRUITS AND VEGETABLES

Commodity	*United States*	*Mexico*
broccoli	Dec.-May	Dec.-Mar.
cantaloupe	Jun-Aug.	Nov.-May
cauliflower	Oct.-May	Nov.-Apr.
cucumbers	Mar.-Nov.	Dec.-Mar.
lemons/limes	Mar.-Aug.	N/A
mangoes	May-Sep.	Apr.-Aug.
okra	Jun.-Aug.	N/A
onions	year round	Nov.-Jun.
pineapple	Mar.-Jul.	N/A
squash	Dec.-May	Nov.-Jun.
watermelon	May-Aug.	Jan.-May

Source: Brown and Suarez 1991, GAO 1991.

Note: N/A indicates the data were not available.

170

Appendix C.5 List of Fruits and Vegetables Admissible in the United States from El Salvador

A. Admissible without USDA import permission

dried beans	raw peanuts	fresh mushrooms
cannonball fruit	St. Johnsbread	dried nuts
coconuts	tamarind	waternuts
henequen	fresh truffles	
lily bulbs	waterchestnuts	

B. Admissible with USDA import permission

acrocomia	limes	chestnuts
arrowroot	malanga	chickpeas
asparagus	mulberries	garlic
astrocaryum	okra	ginger
bananas	onions	lettuce
beets	oyster plant	sweet potatoes
broccoli	palmetto	Swiss chard
carrots	pineapple	thyme
cassava	rutabagas	turnip
cauliflower	spinach	watercress
celery	strawberries	

C. Admissible in North Atlantic ports, in addition to parts A and B

artichoke	lemons	papaya
cocoa	mandarin oranges	pigeon peas
citronella	mangoes	sorrel
grapefruit	oranges	tomatoes

D. Admissible in North and South Atlantic ports and Gulf of Mexico ports, in addition to parts A and B

artichokes chayote squash

E. Admissible in Pacific ports, except California, in addition to parts A and B

artichokes tomatoes

Source: USDA 1984.

APPENDIX D

LIST OF PERSONS INTERVIEWED

Aeropuma
Javier Ayala, General Manager
Ivan Navarro, Director

Banco Central de Reserva de El Salvador
M. Rebeca Flor, Jefa Centro de Tramites de Exportación
José Edilberto Martínez Giro, Credit Manager

Banco Cuscatlán
Lorena Rubio de Lozano, Subdirector, Export Finance
Maria Elena Sibrián de Casco,Corporate Executive, Export Finance

Cooperative League of the United States of America (CLUSA)
James Evans, Sub-Director
Samuel Salazar Genovez, Gerente Agro Negocios

Corporación de Exportadores de El Salvador (COEXPORT)
Silvia Cuéllar, Director

Del Tropic Food Company
Ron Amthor, President

Fundación Salvadoreña para el Desarrollo Económico y Social (FUSADES)
Vilma de Calderón, Analista Estudios Microeconómicos
Ana Ruth Hidalgo, Analista Estudios Microeconómicos
José Mario Magaña, Analista Sección Macroeconómica
Agustín Martinez, DIVAGRO
Alessandra Origi, Intern
Jorge Ramos, Chief, Aquaculture Section, DIVARGO
Maria Teresa de Rendon, Analyst, PRIDEX
Roberto Vidales

Ministerio de Agricultura y Ganaderia
Luís Rafael Arévalo
Ricardo Guevara, Unidad de Analisis Política
Mercedes Llort, Unidad de Analisis Politica
Francisco Vanegas, Director, Estadisticas Agropecuarias

Ministerio de Economia
Janet Herrera, Office Technology Transfer and Investment Promotion
René León
William Pleitez

Ministerio de Hacienda
Mauricio Aguiluz, Jefe del Departamento de Estadisticas
Oscar Edmundo Anaya S., Director General de Impuestos Internos
José Salvador Sanábria, Director de Aduana
Miguel Angel Zometa

Ministerio de Planificación y Coordinación del Desarrollo Económico y Social
Gerardo Peraza, Grupo Asesor Económico y Social

Moore Comercial
Ramsey Moore, Chief Executive

Navieros Inter-Americanos, S.A., Inc.
Pedro Andrés Iraheta, Gerente General

Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA)
Ing. Guillermo Otero Medal, Director Tecnico

TACA Airlines
José Ernesto Vides, Freight Sales
Arturo Melendez, Chief of Freight Dept.

Unión de Cooperativas de Cafetaleros de El Salvador (UCAFES)
Ing. Alfonso Hernández Herrera, Gerente General

USAID/San Salvador
Ana Aguilar
Juan Belt
Deborah Kennedy-Iraheta
Alfonso Escobar Chevez, USDA representative
Mike Wise, Agriculture and Natural Resources

173