

PN-ABQ-653

AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE II

Under contract to the Agency for International Development, Bureau for Research and Development, Office of Agriculture
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ls. 26095

AGRIBUSINESS PROMOTION IN DEVELOPING COUNTRIES: POLICY REGIMES AND INSTITUTIONAL SUPPORT

September 1993

**APAP II
Collaborative Research
Report No. 351**

Prepared for

Agricultural Policy Analysis Project, Phase II (APAP II)

A.I.D. Contract No. DAN-4084-Z-00-8034-00

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ABSTRACT

This paper reviews the policy and institutional factors needed to launch and sustain an agribusiness export promotion campaign. It is directed to policymakers in small open economies, as well as donor officials who work with such countries, who accept an outward-oriented growth strategy as appropriate. The paper examines in detail first and second-best economic policy instruments, and the most appropriate roles for public and private sector actors in supporting agribusiness development. The main policy objectives are (1) a flexible and realistic exchange rate; (2) a liberal trade regime; (3) competitive primary input markets; (4) competitive financial markets; (5) a non-discriminatory tax system; and (6) a transparent and rational regulatory system. Institutionally, the goal is to foster a set of units that collaborate in a consistent manner to provide an enabling environment. The paper concludes with a call for further research into the following areas:

- the design and management of institutions that support agribusiness development;
- analysis of labor market imperfections, and how human capital for agribusiness development can be strengthened;
- how financial markets can be strengthened and formal agribusiness firms used for on-lending to informal agribusiness enterprises;
- the costs, benefits and sustainability of market information and intelligence in support of agribusiness development;
- selection among direct investment flows, joint ventures, licensing, and franchising arrangements as ways of investing in agribusiness; and,
- the likely implications of increased environmental regulation of agribusinesses.

1. INTRODUCTION

In an effort to increase export revenue, spur economic growth, and create employment, many developing countries and donors have designed, financed, and implemented various interventions aimed at promoting food and agricultural exports and attracting foreign investment. These efforts have met with varying degrees of success, depending on policy and regulatory regimes, the extent to which infrastructure is adequate or upgraded, a country's initial endowments and human capital base, the timing and country targeting of export initiatives, and the country's level of economic and agricultural development. This paper will focus primarily on agribusiness export promotion as a way to stimulate the growth of the agricultural sector, the agroindustrial sector, and other sectors related to the agribusiness system (e.g. services, transport). Limited attention will be paid to agribusiness development for domestic and regional markets.

This paper reviews the economic literature, identifying the preconditions and institutions needed for launching a successful trade and investment program, and examining how the instruments of export and investment policy should be manipulated in order to sustain the campaign. The purpose of the paper is to provide policymakers with a broad theoretical understanding of the issues, illuminate the tradeoffs of various policy options, and provide a guide of how to proceed in designing an agricultural trade and investment program. It is intended to be used in conjunction with the *Agribusiness Policy Inventory* guidelines (see Ender 1993), which help to identify critical constraints to expanded agribusiness activity and to prioritize areas for more in-depth analysis and action.

In the last twenty years, the paradigm of an outward-oriented growth strategy largely supplanted autarkic or import-substituting industrialization as the means of generating faster economic and employment growth. During the 1980s, many developing countries experienced steep increases in real international interest rates and sharp deterioration in the commodity terms of trade, which precipitated balance of payments difficulties. Trade policy adjustment and macroeconomic stabilization programs were launched in response. Underlying most of the trade and economic reform programs was the premise that policy liberalization establishes a more competitive environment and promotes efficient resource allocation. Most of the trade programs contained measures to abolish quantitative restrictions or convert them to tariffs, to reduce import tariffs and export taxes, and to make the regulations governing domestic production more transparent. Financial reforms usually included abolition of credit controls and higher interest rates. Agricultural sector reforms tended to reduce the incidence of administered prices and the role of marketing boards. Empirically, the demonstration effect of the newly industrialized East Asian countries and the better performance of export-biased countries during the 1970s and 1980s have combined to create a greater willingness to erect freer trade and investment regimes (Krueger, 1978).

The adoption of a more "*outward-oriented growth strategy*", however, should not be confused with implying exports at all cost and a mutual exclusion of efficient import substitution.

An outward-oriented growth strategy means establishing rational policy incentives and effective institutions that encourage both efficient export promotion and efficient import substitution. Export development based on export subsidies would be inefficient, since it violates the fundamental notion of specialization in what can be produced with the least opportunity cost. A rational policy regime for export promotion includes realistic exchange rates, adequate infrastructural investments, wage restraint, manpower training, less government regulation, low inflation policies, and market-determined pricing. This policy regime also provides incentives to local import-competing industries. Even countries with large domestic markets, which have advocated inward-oriented policies as appropriate, could benefit from the diffusion of technology and management techniques that export competition induces. Empirically, Japan and Korea pursue export-led growth strategies but still protect certain sectors of their economies. The issue is whether a nation's export producers are on equal footing with foreign competitors. Parity with foreign competitors is a necessary condition for successful export promotion. Parity with import substituters, in terms of incentive policies and institutional support structures, is also highly recommended. Bias in favor of domestic import substituters may have a high opportunity cost in terms of foregone expenditures or promotional efforts that could have gone to support an export thrust, and policies which do not favor exporters.

The lingering strategy question is whether primary commodity exporters can succeed in the present unfavorable international setting with low growth rates in the industrialized countries, more intense competition, and different cultural and historical legacies. Another concern is whether labor and financial market imperfections can be overcome. Countries with high wages relative to productivity and active labor unions, such as the Anglophone Caribbean states, do not seem to be able to benefit from export-promoting policies (Milner, 1990). Likewise, countries that are not able to improve access to credit for medium- and small-scale producers cannot exploit price incentives and natural comparative advantage. An issue of vital concern is how to overcome imperfect information, collateral constraints, and trade risk.

Agribusiness is broadly defined as encompassing any activity related to the production, processing, and distribution of agricultural products and inputs. Whereas agriculture, narrowly defined as the cultivation and/or extraction of crops and fishery resources, tends to fall as a percentage of Gross Domestic Product over time, the contribution to agribusiness to GDP tends to rise because it encompasses more high-value and transformational activities, such as the fabrication of farm implements and food processing (See Ouédraogo et al., 1993). For many countries with abundant land and labor resources and strong agrarian traditions, immediate transition to manufactured export platforms is unlikely. Rather an intermediate phase where significant agribusiness development occurs, shifting surplus labor, creating backward linkages, and generating significantly more value-added in the agribusiness system, could serve as a precursor to non-agricultural industrialization. Accordingly, agribusiness has emerged as a priority concern among donors and host governments.

A strategy of agribusiness development should encourage production and services for the domestic market as well as the export market. In the medium to long term, the external market may receive more emphasis because of the effective demand limits of the local market. At the

present time, many developing countries lack the capacity to successfully export agribusiness products because of the following:

- lack of sufficient, reliable surplus production
- inadequate and dilapidated infrastructure
- weak marketing management and capacity
- product quality problems
- capital constraints
- dearth of indigenous entrepreneurs
- distortionary policies.

In order to stimulate economic activity and export-based development, immediate policy reforms and investment in infrastructure, education, and extension services are typically needed. In this infancy stage, the aims of agribusiness exporters should be to develop export capacity and refine production and marketing techniques. Establishing this enabling environment and identifying effective transitional steps in agribusiness system development are the subject of this paper.

The organization of this paper is as follows. Chapter 2 discusses methodologies for determining competitiveness and identifying commodities with high growth potential or subsectors for investment, as well as measures of incentive bias. Chapter 3 outlines appropriate roles for both the public and private sector in fostering agribusiness development. It discusses government's role in providing an enabling environment through setting of realistic exchange rates, pursuing sound macroeconomic policy policies, investing in the basic infrastructure needed to initiate an export campaign and attract foreign investment, and coordinating and regulating agribusiness system in collaboration with the private sector. Chapter 4 addresses trade finance as a means of overcoming financial market impediments and the need for automatic access to credit. Chapter 5 examines firm-level interventions that help to improve firm, industry/subsector and agribusiness system performance. Chapter 6 highlights areas for further research that would assist policymakers in designing more effective programs to assist agribusiness development. Chapter 7 provides a summary of key issues.

2. COMPETITIVENESS AND INCENTIVE BIAS

Competitiveness is inextricably linked to profitability and least cost of production. A product or activity is said to be competitive if it is less costly for consumers compared to other consumption choices and if producers derive a higher relative profit margin compared to alternative investment choices. Competitiveness is determined by the interplay of (1) natural resource endowments, (2) factor prices, (3) transportation costs, (4) the quality, extensiveness, and reliability of the physical, technical, and financial infrastructures undergirding production and marketing, and (5) the quality and level of human capital development. Government policies affecting the exchange rate, trade, subsidies, taxes, pricing, regulations, and labor laws directly and indirectly shape productivity and in turn factor competitiveness. Likewise, the amount of public investment and the size of operational budgets can shape the extent and quality of available infrastructure. On the other hand, natural resource endowments and external transport costs are largely invariant in the short to medium run. The challenge for governments and firms, therefore, is to increase the number of "competitive" tradable products and to remain agile. The ability to respond quickly and appropriately to shifts in market forces and technological developments is increasingly becoming critical to success.

Competitive advantage in the food and agricultural commodity system depends on three elements:

- **Lower cost of production and delivery**, which permits the firm or industry to underprice its competitors or to obtain higher returns when prices are at levels equal or near those of competitors;
- **Product differentiation**, which permits the firm or industry to command premium prices and occupy profitable market niches;
- **Complementary supply capabilities**, which permit a firm or industry to take advantage of seasonality or less inter-annual variability in the production and export of an agricultural commodity compared to competitors who sell in the same common market.

The basis for determining the relative competitive position of a firm or industry in the international marketplace is comparative cost and quality. Developing a reputation for quality, however, takes a long time and can be lost quite easily with a few low-quality shipments. Interestingly, it is very difficult for a producer to pursue both competitive strategies—becoming a low-cost supplier and a high-quality supplier—at the same time. Product differentiation usually requires greater technological and marketing sophistication and hence higher quality inputs. The result is a higher cost of production. Over the course of time, economic, technical, and trade practices may force a firm or industry to alternate between being a low-cost supplier and a high-quality provider of product and bundled services. In the medium to long term, the last element, complementary supply capabilities, is not a viable development strategy. The firm still has to

position itself either as a low-cost or a product-differentiated supplier, otherwise competitors will enter the industry and close this window of opportunity (Porter, 1990).

Exhibit 2-1 outlines the factors that influence food and agricultural commodity system competitiveness and growth. These factors shape the type of incentives to invest in particular production and marketing systems, affect the likelihood of a supply response to such incentives, and determine the competitiveness or efficacy of the supply response.

Clearly, the scope for growth and development of a particular food commodity system depends on the size and pattern of food demand. In the context of an external market, it also depends on the ease of entry. Changes in income, tastes, living and work patterns (demand for food away from home), packaging, and preservation technology strongly influence demand and create either food marketing opportunities or impediments. Access to foreign markets may be blocked by protectionist measures or facilitated by preferential trade arrangements and historically close ties, as in the case of Lomé convention countries' access to EC markets. Sustained import penetration may thus depend on political bargaining as much as economic competitiveness. Thus, the relative lobbying strength and sophistication of competing firms in the import market and in other supplier countries may determine international competitiveness.

The macroeconomic policy setting also has a significant role to play in conditioning incentives to invest and determining cost competitiveness. Economic policies influence the pattern of relative prices among products and inputs. A stable macroeconomic environment tends to stimulate investment and long-term productivity. Incentives to invest and trade, on the other hand, will be undermined by high rates of inflation, grossly distorted prices, low labor productivity, and an overvalued exchange rate.

Whereas macroeconomic and pricing policies shape incentives, natural resource endowments and physical and social infrastructure determine the speed and efficacy of response. Natural resources and human capital are the building blocks, defining the capacity to be competitive. Neoclassical trade theory (Heckscher-Ohlin) says that comparative advantage is based on factor abundance. Countries will tend to produce and trade the commodities that use more intensively the factors that they possess in greater abundance. Empirically, the theory has been challenged. Other factors, such as entrepreneurial ability, macroeconomic policies, trade protectionism, and export subsidies combine to give rise to theoretically unexpected factor intensities and commodity flows (Root, 1984). More recent work focuses on strategic behavior and the importance of acquiring entrepreneurial and trade experience, which are vital to any sustained, effective marketing campaign (Jaffee, 1993). Many countries have "cheap labor," but success is often determined by the existence of relatively more of the scarce, limiting complementary factor(s). In a given food commodity system, such experience can be acquired through a number of alternative paths:

- direct foreign investment;
- joint ventures with knowledgeable foreign partners;
- transfer of skills and technology from another successful local agro-industry; or,
- learning (painstakingly) through doing.

Exhibit 2-1: Factors Affecting Food and Agricultural Commodity Competitiveness

DEMAND FACTORS

Factors in Domestic & International Markets

- Income, Population, and Growth Levels
- Income and Price Demand Elasticities
- Consumer Tastes & Preferences
- Consumer Health & Nutritional Concerns

Size of Domestic Market

- Larger the Market, More Firms Able to Achieve Scale Economies
- Larger the Market, More Firms Able to Dispose of Below Top Quality Produce in Domestic Market

INTERNATIONAL MARKET CONDITIONS & OPPORTUNITIES

- No. & Strength of Competing Suppliers
- Competitors' Export Subsidies & Promotional Programs
- Complementary Supply Capabilities & Windows
- Substitution Possibilities in Production & Consumption
- Opportunities for Product Differentiation & Niche Market Targeting
- Trade Barriers

INFRASTRUCTURE

- Transportation Grid & Condition
- Ports, Airports
- Communications, Telecommunications
- Utilities: Electricity, Water, Sewage
- Marketing Facilities, Storage

TECHNOLOGY

- Post-Harvest Handling Technology
- Quality Control in Production/Processing
- Improving Technology to Lower Costs
- Ability to Borrow, Adapt & Improve upon Others' Technology
- New Product Research & Development

POLICY & REGULATORY ENVIRONMENT

Macroeconomic Policies

- Fiscal and Monetary Policies
- Exchange Rate Policies
- Trade Policies
- Price Policies
- Labor Policies

Sectoral Policies

- Financial Sector Policies
- Agricultural Sector Policies
- Transport Sector Policies
- Technology Development Policies

Regulations

- Licensing, Patents
- Export Processing, Certification
- Product Testing/Quality Control
- Environmental Regulations
- Govt. vs. Industry Self-Regulation
- Phytosanitary & Sanitary Regulations

ENDOWMENTS

- Natural Resources
- Labor
- Human Capital (education, skills)
- Entrepreneurial Experience & Aptitude
- Cultural Attributes (cohesion, cooperation)

INTER/INTRA-FIRM COORDINATION/CONTROL

- Coordination of Procurement, Production, Processing, Distribution
- Alternative Procurement/Sales Arrangements: Spot Markets, Contracts, Futures, Integration
- Risk Sharing & Reduction Measures

PUBLIC SECTOR INSTITUTIONS AND SERVICES

- Research and Extension
- Credit Facilities & Services
- Market Information & Intelligence
- Enforceable Contract Law & Property Rights
- Infrastructure Investments and Maintenance

Well-developed physical and social infrastructure are also important for determining the supply response to policy incentives. Physical infrastructure such as roads, ports, railways, telecommunications, reliable and sufficient power generation, and storage and processing facilities are fundamental to a well-functioning marketing system. A strong, transparent, and accessible legal system also facilitates commodity system development. Clearly defined property rights and enforceable contract laws lower transaction costs and give business parties confidence to conduct and maintain long-distance relationships. Often overlooked is exporters' non-price competitiveness, which is influenced by the following:

- importers' access to exporters through effective telecommunications links;
- exporters' use of appropriate product packaging and labeling;
- exporters' timely delivery of products that meet buyer specifications; and,
- exporters' responsiveness to changing business conditions and buyer requirements.

Lastly, microeconomic and coordination activities influence commodity competitiveness. Economic analysis tends to focus heavily on price/quantity relationships, largely ignoring the interpersonal and interorganizational relationships needed to effectively coordinate and manage the diverse elements that constitute a commodity production and marketing system. At each interface there is risk and uncertainty. Appropriate institutional mechanisms and trust have to develop in order attain high levels of productivity, product quality, and timely deliveries. Critical to effective coordination are risk reduction mechanisms, reciprocal and symbiotic relations, rapid and accurate information flow, and the availability of credit and other debt instruments. In developing societies with weak legal and credit systems, ethnic, religious, and tribal affiliations often serve as substitutes for the missing institutional elements. Thus, one ethnic group may come to dominate a particular industry. Accordingly, understanding the social and institutional context of doing business in transitional societies and exploring appropriate risk sharing/reduction mechanisms may be as equally important as making investments in physical infrastructure.

Successful exporting countries have been able to combine and exploit these factors to their gain. In a study of the manufacturing export promotion experience of Hong Kong, Singapore, Taiwan, and South Korea, five key elements were found to have been "packaged" or bundled between the 1950s and 1960s, which permitted later unparalleled growth between the 1970s and 1980s. They were (1) technical know-how; (2) marketing know-how; (3) managerial know-how; (4) capital; and (5) access to external markets (Wen, 1991). All the countries are poor in terms of natural resources but rich in terms of skilled labor and entrepreneurial talent. In addition, all invested heavily in physical and social infrastructures, pursued sound macroeconomic policies, exploited Cold War tensions to obtain preferential entry into the U.S. market, and developed very innovative financing and risk-reduction mechanisms for exporting firms.

2.1 Methods for Assessing Competitiveness

For government policymakers and potential investors, establishing a ranking of price/cost competitiveness for a country becomes the first order of business. Investment resources and human capital are scarce and in order to reap the highest expected return, choices have to be made. Several analytical tools can be used to identify high potential commodity systems. Unfortunately, the tools are imperfect because they are inherently static; they reflect current efficiencies and do not contain sufficient information to guide future decisions in the medium-to-long term (Tsakok, 1990). They all depend on historical data and cannot easily integrate into the analysis the likely impact of technological innovations, the rate of technological diffusion, the economic implications of environmental and food safety regulations, changes in consumer tastes, or the imposition of protectionist barriers or the granting of preferential trade access in key external markets. The appropriateness of ranking methods is only to identify high potential commodities in the early stages of a sectoral or export development drive. Investment decisions should be guided by thorough cost-benefit analyses.

Three methods are commonly used for determining comparative and competitive advantage. They are (1) the domestic resource cost coefficient (DRC); (2) net economic benefit (NEB); and (3) the price competitiveness index (PCI). They all measure relative efficiencies, that is the ability to produce a commodity for a lower opportunity cost compared to other trading nations. If a country is efficient in the production of a commodity, it is said to have comparative advantage and should seek to expand production and export of the commodity. If the converse holds, the country should discourage production of the said commodity.¹

2.1.1 Domestic Resource Cost

DRC compares the opportunity costs to domestic production to the value added that it generates. The numerator measures domestic resources and nontraded inputs valued at opportunity or shadow values while the denominator measures the net foreign exchange earned or saved by producing the good domestically.² Thus, a value of less than one indicates

¹ A possible exception to the converse might be made if a compelling food security argument convinces policymakers of the need to keep producing a staple commodity for domestic consumption, even though the country is not the most efficient, low-cost producer. As international markets become more globally integrated, however, this type of argument becomes less defensible.

² Two methods exist for calculating DRC's, Corden (1987) and Balassa (198). The Corden method sums both the direct and indirect value added in the numerator while the Balassa method only sums the costs of the direct primary resources used. For example, if the DRC was being calculated for beef, the Corden method would include the values for land, labor, and capital used to produce all feed grains. Consequently, the Corden DRC tends to be larger and more complete than the Balassa measure but more time consuming. Which method is used depends on policy interest, time available, and quality of data. If the interest is in scarce land and labor resources, then the Balassa method is preferred. If the interest is in nontraded intermediary inputs, then the Corden method is preferred.

international competitiveness since the economy saves foreign exchange from local production, because the opportunity cost of its domestic resources is less than the net foreign exchange it gains in exporting or saves in import substituting. The converse holds if $DRC > 1$, because the economy is incurring costs in excess of what it gains or saves from the production in terms of net foreign exchange.

The main drawbacks of DRCs are that they are average measures, specific to choice of technique, scale of output, level of demand, and the exchange rate. They do not say anything if production were to increase due to marginal producers. If DRCs are less than one and these factors are likely to change, sensitivity analysis can be conducted to determine robustness of the original outcome.

$$DRC_i = \frac{\sum_{j=k+1}^n a_{ij} V_j}{P_i^b - \sum_{j=1}^k a_{ij} P_j^b}$$

where a_{ij} , 1 to k = coefficients for traded inputs

a_{ij} , $k+1$ to n = coefficients for domestic resources and nontraded primary inputs

V_j = shadow price of domestic resource or nontraded input

P_i^b = border price of traded input

P_j^b = border price of traded output

2.1.2 Net Economic Benefit

NEBs indicate the difference between the gross value of output and the total costs of all inputs, including traded inputs and nontraded intermediary and primary inputs. The valuation is in economic or shadow prices—hence the term net economic benefit. A positive NEB reflects an economic surplus generated in production and thus efficient resource use. A negative NEB, reflects a waste of resources. The NEB and the DRC will also yield the same result because, the NEB can be derived algebraically from the DRC. The NEB is simply the border price of output minus the sum of traded inputs at border prices, minus the sum of domestic resources and nontraded inputs valued at domestic shadow prices.

$$NEB_i = P_i^b - \sum_{j=k+1}^n a_{ij} V_j - \sum_{j=1}^k a_{ij} P_j^b$$

where the terms are previously defined.

The main advantage of the NEB over the DRC is that calculation is more straightforward once all the data have been collected. For example, if traded inputs are wrongly attributed to the numerator as domestic resource costs, the DRC will be inflated, possibly leading the analyst to conclude erroneously that the activity is noncompetitive internationally. This error in classification will not affect the NEB. The main weakness of the NEB, however, is that it is unit sensitive. Rankings of commodities have to be standardized to one unit of measure in order to determine relative efficiency. This can be very cumbersome. Thus, DRCs are more frequently employed in the field.

2.1.3 Price Competitiveness Index

Several indices of price or cost competitiveness exist but they all have the same structure. They are a ratio of relative prices weighted by trade share. They are the easiest to calculate because they rely on readily available trade and financial data.

One of the more common indices used is the one developed by Gerald Helleiner (1991).

$$C_{jh} = \sum_i E_i \frac{P_i}{P_h} W_{ij}$$

where j is the particular commodity produced in country h ; and where

E_i = an index of change in the nominal exchange rate expressed in the currency of country i , the importing country.

P_i = an inflation index in country i , the importing country.

P_h = an inflation index in country h , the home country.

W_{ij} = is the share in country i 's market that commodity j of country h enjoys.

For a particular commodity j in country h , C_{jh} records the change in the real effective exchange rate relevant for assessing industry (industry j of country h) competitiveness in a particular export market. It can be modified to take into account specific taxes or subsidies that may affect the commodity or industry in question.

Avoiding gross misalignment of the real exchange rate is a precondition for export success. Overvalued currencies increase the relative cost of tradables and seem to have adversely affected the export performance of many African and Latin American countries in the last two decades (Edwards, 1989). However, there is much econometric uncertainty about the construction of equilibrium exchange rates and the systematic, statistical detection of a link between export growth and real exchange rates across countries. Part of the problem is economy-wide aggregation of exchange rate effects and non-price factors (see Milner, 1990). However, there is firm econometric evidence that nontraditional export growth is associated with alignment and stability in exchange rates (Wen, 1991, p. 23).

If a country has a noncompetitive real effective exchange rate for a particular industry or commodity, government policymakers have three options: (1) currency devaluation; (2) subsidies to the target industry; or (3) abandonment of the industry as an export sector. Devaluation is more difficult to sell politically but does not trigger countervailing, retaliatory actions such as antidumping duties that an industry-specific subsidy program may incur. The merits of these alternatives raise the question as to the proper role of the public sector in export promotion.

2.2 The Role of the Public Sector in Enhancing Export Competitiveness

The merits of these alternative measures of competitiveness raise the question as to the proper role of the public sector in export promotion. The basic task for the public sector in agribusiness promotion and development is the creation and maintenance of an enabling policy environment. Macroeconomic policy has four general objectives: (1) economic growth; (2) full employment;³ (3) price stability; and (4) balance of payments stability. The various instruments used to pursue these goals consist of exchange rate, trade, fiscal, monetary, labor, financial sector and regulatory policies. Three of the policy goals are interrelated and synergistic. Rapid economic growth promotes price stability because more goods and services become available, which eases the need for strong monetary policy. It also generates more exports, which eases balance of payments difficulties. Trade surpluses and/or balance of payment stability attract capital inflows and direct foreign investments, contributing to further growth.

The challenge is how to combine and manipulate the various instruments to place the economy on a growth path. If export promotion is adopted by the national leaders as a growth strategy, assuming production of some commodities is internationally competitive, providing a neutral or favorable export bias for the food and agricultural sector in the aggregate becomes an additional policy objective. Underlying a sustainable development strategy, however, is the additional and cardinal assumption of political stability and social consensus on the distribution

³ Full employment does not mean everyone in the economy is employed. Structural and transitional unemployment lead to a definition of "full employment" where 5% (or perhaps more) of the working-age population may be unemployed.

of productive resources and access to them. Without policy consistency, able leadership, and a social pact, investor uncertainty may arise, forestalling long-term investments and leading to a deterioration of existing human and physical stocks of capital.

Most small, open developing economies theoretically have few, if any, choices concerning growth strategies. Significantly higher levels of income are likely to be attained only through increased intraregional and extraregional trade because of the limited size of domestic markets. However, before domestic firms become externally active, they should perfect their techniques in domestic and regional markets. Consumers in low- and middle-income countries which constitute regional markets may be more forgiving than high-income markets. Products and services have to be produced with competitive technologies and acceptable quality domestically before external success is likely (Singer and Gray, 1988). Export enclaves with few backward linkages generate employment and foreign exchange but are limited as sustainable engines of growth. Many such operations tend to be highly mobile, periodically changing sites of investment in order to obtain the lowest-cost principal factor of production, which is labor (Krueger, 1991). More broad-based economic development requires attention to both domestic and export producers and interlinkages between various industries.

Setting neutral or export-biased policies, nevertheless, helps to create incentives for both the expansion of domestic-oriented and export-oriented agribusiness and agricultural operations. Historically, the pattern for developing countries has been for governments to tax the agricultural sector and protect the urban-based, manufacturing sector (Krueger and Valdés, 1992). In the cases of the heaviest taxation, the results have been declining agricultural output and increased black market or informal sector activity.

2.3 Measuring Incentive Bias

Incentive bias in trade strategy, or the relative price effects, can be measured either through multiple criteria or single criterion indices. Multiple criteria measures have more information content but require considerable judgement to interpret and may give mixed results because of offsetting policy initiatives. Single criterion measures are easier to interpret but suffer from data aggregation problems. When neutrality is indicated, it may be due to distorted domestic policies or the natural consequence of international market forces.

Multiple criteria usually use information regarding the following: (1) nominal and effective rates of protection; (2) reliance on direct exchange rate controls; (3) export subsidies; (4) exchange rate misalignment; (5) the number and magnitude of quantitative restrictions; and (6) tariff levels to construct some ordinal ranking of distortion: high, medium or low degree of either outward or inward orientation (Greenway and Reed in Milner, 1990).

Single measure indicators include (1) nominal and effective rates of protection, (2) the Krueger bias index (3) and effective exchange rates for exportables compared to importables. Algebraically, the various indicators are represented below:

2.3.1 Nominal Protection Coefficient

The nominal protection coefficient of a commodity is the ratio of its domestic price to its border price, where the border price is the international price converted into a domestic price equivalent using an exchange rate. This is calculated as follows:

$$NPC_i = \frac{P_i^d}{P_i^b}$$

where for the *i*th commodity,

P_i^b = adjusted border price, reflecting the international market price corrected for currency over- or under-valuation and transport, handling, and insurance costs to a common point (typically a major terminal market) in the country.

P_i^d = the weighted average domestic price (that weights official and unofficial prices, or prices by location by market share).

A value greater than one implies that producers are protected and consumers taxed. A value less than one implies the opposite.

The nominal rate of protection (NPR) is often how nominal protection is calculated and reported. It equals the NPC minus 1 times 100 and is calculated as follows:

$$NPR_i = \frac{P_i^d - P_i^b}{P_i^b}$$

2.3.2 Effective Protection Coefficient

The effective protection coefficient (EPC) goes beyond the NPC in accounting for protection of intermediate inputs used in the production of a good. The effective protection coefficient is the ratio of value added in domestic prices to value added in border prices. It is calculated as follows:

$$EPC_i = \frac{P_i^d - \sum_{j=1}^k a_{ij} * P_j^d}{P_i^b - \sum_{j=1}^k a_{ij} * P_j^b}$$

where for the *i*th commodity, a_{ij} = units of input *j* per unit of output *i*

P_i^d = domestic output price

P_i^b = border output price *i* adjusted for over- or under-valuation

P_j^d = domestic price of input *j*

P_j^b = border price for input *j*

If an EPC has a value greater than one, producers are enjoying positive protection. If an EPC is less than one, they are not being protected. If an EPC is less than zero, production is either being subsidized by the government or the economy is losing foreign exchange by continued production of the commodity.

2.3.3 Trade Bias and Relative Effective Rates of Exchange for Importables and Exportables

The trade bias measure proposed by Krueger (1978) gauges the distortion of domestic prices relative to world prices in importables compared to exportables. It is calculated as follows:

$$B = \frac{\sum_{i=1}^m w_i \left(\frac{P_{mi}}{Q_{mi}} \right)}{\sum_{j=1}^n w_j \left(\frac{P_{xj}}{Q_{xj}} \right)}$$

where *m* and *x* refer to importables and exportables, *w* to weights and *i* and *j* are product groups; and hence:

P_{mi} = domestic price of importables

Q_{mi} = international price of importables

P_{xj} = domestic price of exportable

Q_{xj} = international price of exportables

w_i = share of product group *i* in total imports

w_j = share of product group *j* in total exports

A computed value of one represents neutrality. A value greater than one indicates an import substituting strategy, while a value less than one indicates an export-oriented regime.

In the same vein as the bias measure is the use of relative effective rates of exchange for the import and export sector. It is nothing more than comparing the numerator to the denominator of the aforementioned measure by using value weights for all imports and all exports. If the $EER_{(exports)} > EER_{(imports)}$, the trade regime is said to be export biased. If the two are equal, the regime is neutral, and if $EER_{(exports)} < EER_{(imports)}$, the regime is import substituting (Milner, 1990).

2.4 Concluding Comments

The above measures and the price competitiveness measure suggested by Helleiner (section 2.1.3) have been criticized for not accounting for non-price factors which seem to be increasingly relevant. They also have limited usefulnesses for policymakers whose resource bases and policy options are very constrained. These measures state the obvious in mathematical terms and do not point the way as to how to improve competitiveness and/or select salvageable industries for revitalization (Brewster in Wen, 1990). A better measure, according to Brewster, would incorporate retained value in exports, focus on relative changes in wage levels among competitors, and be sensitive to environmental sustainability issues (Brewster in Wen, 1990).

The competitiveness and incentive bias measures are static and limited (in time) in usefulness. Analysts can, of course, perform sensitivity analysis on measures such as DRCs to see how sensitive the measure (and underlying competitiveness) is to changes in key variables. As Vernon, Porter and others have argued, competitive advantage is often short-lived, particularly for industrial goods and high-technology products. Competitive advantage can likely be enjoyed over longer periods for many agricultural products, although changing consumer tastes and preferences (e.g. shifting away from cholesterol-laden oils and foods in North America), production of synthetic substitutes, and policy-induced factors can change competitive advantage quickly. Finally, as the GATT Uruguay Round moves toward completion, reduction of tariffs, tariff-like instruments such as countervailing duties and variable levies, quantitative restrictions, export subsidies, and farm subsidies for agricultural products remain a major stumbling block. Hence, an underlying comparative advantage may not hold under distorted international agricultural product prices and trade regimes.

Incentive bias measures may receive less attention in the future as many developing countries face or are undergoing trade liberalization as part of structural and sectoral adjustment loans. The World Bank is compelling developing country governments to lower and harmonize tariff regimes, as well as to convert quantitative restrictions to tariffs ("tarification"), as conditions precedent to structural adjustment loans. Given the likely continued significant degree of protection and trade distortions following the closing of the Uruguay Round, it will still be necessary to quantify the degree of incentive bias in most industrial countries' agricultural sectors.

3. ANALYTICAL APPROACHES TO GOVERNMENT INTERVENTION

If the government understands what the potential is for agribusiness development and the impact that its policies have, what analytical approaches should it use to determine an appropriate mix of policy instruments? How can the government and the private sector best complement each other's actions? These are the subjects of Chapter 3.

3.1 Public Goods and Externalities

Standard economic theory tells us that certain goods are different from others: their use cannot easily be limited to particular consumers once they have been created. These are called public goods. Examples are roads, published market information, and commodity grades and standards. When the consumption of a good can be limited to a particular consumer, the private sector will tend to produce this good in the amounts desired by consumers. That is because consumers are each willing to pay a price for the good that is commensurate with its resource cost. In the case of public goods, if one consumer purchases the good, it is then easily available to others. The benefit to society from the good may be great, but the private producer will only be able to capture modest returns from the individual consumer who bought the good (and not be able to prevent other, non-paying consumers from using the good). The private sector will tend to underproduce goods whose benefits cannot be appropriated by one party. In this situation, the production of public goods is a natural role for the public sector.

Externalities are also benefits or disbenefits that arise from the sharing of a good. Generally the distinction between the externality of a good and its public sector attribute is that an externality is unavoidable, whereas the sharing of public sector goods is entered into willingly. Since the externality is not the part of the good that generates income for the producer, s/he is generally not concerned with it. The role of government becomes one of limiting the impact of negative externalities (such as water pollution) and maximizing the impact of positive externalities (such as clean air).

The production of public goods in less than optimal quantities and the production of negative externalities are examples of **market failure**. That is, a free market will not produce socially optimal results. Thus market failure is often the theoretical starting point for government intervention.

3.2 Implications of Market Failures for the Policy Environment

Unfortunately, what might be termed "policy failures" are often perceived by governments as market failures. For example, the government fails to produce sufficient infrastructure, and, as a result, the private sector does not develop rapidly in a particular area or industry. The Government perceives a "market failure" and intervenes with some kind of

financial incentives. This overcomes the impact of insufficient infrastructure, and the private sector begins to produce more vigorously. The Government then feels its intervention was justified. In the long run, however, the country will remain deficient in infrastructure, and the treasury will be depleted by subsidies.

The obverse of the market failure justification for intervention, then, is that production of goods and services should not require government intervention if there is a comparative advantage in their production. The private sector will respond to the opportunity, and direct government participation in production and marketing, either in competition with or in place of the private sector, will be counterproductive and a misallocation of scarce public resources.

The nature of public goods and the existence of externalities create rational opportunities for government action. By this logic, governments should invest in infrastructure and various goods that are like infrastructure. By establishing and enforcing weight, size, and quality standards, for example, government removes informational asymmetries and uncertainties about product characteristics in the market place and permits trade to occur "sight unseen" and without "physical assumption of possession." Without some certainty as to the quality of the final product, businesspersons would be reluctant to invest and trade, lowering the social benefit to the nation of additional commerce.

Governments may also tax, or impose emission standards on, polluters to preserve natural capital and recreational use amenities. In this case, government lowers the economic burden of downstream users of the same natural resource and forces the polluter to internalize the full social costs of his productive activity.

What implications do market failures have for the agribusiness policy environment? Should governments use their power to make economy-wide and sectoral policies to try to increase production of certain commodities and reduce that of others? Or should they take a "neutral" policy stance and allow the market to decide the quantities of each commodity to be produced and traded?

The theoretical justification for pursuing a neutral policy stance is that production of commodities for which the country has a comparative advantage should proceed free of disincentives created by policies. As mentioned above, positive incentives to producers, in the form of direct or indirect subsidies, will often encourage additional production. But the opportunity cost of these subsidies is foregone public good investments that only the government is able to make, so subsidies are not a good long-term strategy. A country cannot hope to fully exploit its comparative advantages in the world market through specialization if its producers are not able to compete with the producers of other countries on an equal footing. Thus, the essence of neutrality is the removal of all possible impediments to competitiveness. If other countries are unfairly subsidizing exports, countervailing duties on the subsidized foreign import may be necessary to help domestic producers. Empirically, the achievement of neutrality seems to have been a common feature in explaining exporting countries' successful growth experience (Rhee, 1985; Lal and Rajapatirana, 1987).

3.3 Steps to an Incentive-Neutral Policy Stance

To achieve an incentive-neutral stance, macroeconomic and sectoral policies have to be designed to achieve five key minimum conditions or objectives:

- A flexible and realistic exchange rate
- Free trade in inputs and outputs
- A competitive financial market
- Competitive primary input markets
- Nondiscriminatory domestic taxes

Because different developing economies face different levels of distortions and different institutional and political constraints, second-best or transitional policies may also be pursued. If that is the case, the operative key objectives will be modified. They would include using differential and compensatory tax/subsidy policies, trade and banking regulations 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; (3) guarantee automatic access to working capital for exporters at uniform interest rates which are not higher than similar activities; and (4) guarantee that the actual prices of inputs for export activities are equal to their shadow price (Rhee, 1985).

3.3.1 Flexible and Realistic Exchange Rate

Equilibrium or undervalued exchange rates tend to be strongly correlated with strong export performance during periods of high external demand (Singer and Gray, 1988; Kavoussi, 1985). During periods of low external demand, there is no clear statistical relation. In the case of non-traditional exports, an aligned exchange rate has been shown to be quite significant in explaining export performance (Milner, 1990). Exchange rates are the central variable affecting the returns to exporters. Maintaining a realistic and competitive real effective exchange rate and maintaining relative stability in the nominal rate are therefore important objectives. Attainment of these objectives, however, depends to a large extent on institutional sophistication.

There are two broad foreign exchange rate regimes: free floating and managed floating. A floating regime requires a mature financial system, unrestricted capital movement, a large number of agents holding foreign currency, and close integration into the world's trading and banking system. Demand and supply forces freely determine the exchange rate and assure balance of payments equilibrium. Because of the high degree of volatility in exchange rates, immature financial institutions, and the persistence of capital account controls (lack of full currency convertibility), most developing countries used managed floats. Rapid and unanticipated movements in the exchange rate could pose serious risks for traders. Without sophisticated hedging devices and ample financial reserves, investment and trade activity could be hampered.

Managed floats, therefore, are common and characterized by 1) intervention of the monetary authorities in foreign currency markets (purchasing or selling of a dominant foreign currency) in order to realign the currency, and 2) changes in the domestic money supply in order to smooth exchange fluctuations. One or more currencies of major trading partners are usually pegged or used as reference points. An exchange rate is selected as a reference point, and a formula is derived to maintain the purchasing parity of the local currency vis-a-vis the foreign "pegged" currency. Adjustments can be frequent, a crawling peg, or infrequent, an adjustable peg. Crawling peg adjustments prevent serious misalignments or nondisruptive movements toward alignment. It effectively checks excessive speculation. However, crawling pegs can accentuate domestic inflation and destabilize the demand for money. In terms of maintaining a positive export incentive, it is superior to the adjustable peg, as it can be structured to maintain a constant real effective exchange rate.

The main instruments used to maintain a competitive exchange rate are (1) monetary policy, (2) sterilized interventions in foreign exchange markets, (3) capital controls, and (4) fiscal policy.⁴ The most potent and preferred instrument is monetary policy. For example, if the objective is to maintain equilibrium in the foreign exchange market, the Central Bank authorities can expand (contract) the money supply above (below) its growth target if the currency is appreciating (depreciating) vis-a-vis the dominant trading currency. Higher interest rates can also attract capital inflows and help stabilize the exchange rate. Sterilized interventions are appropriate for dampening short-run volatility in the exchange rate. Major realignments in the exchange rate require changes in the domestic money supply.

The effectiveness of controls on capital and foreign exchange depends on how well the economy is integrated into the world economy. These controls include differential tax treatment of interest income between foreign and domestic currency deposit accounts, and restrictions on citizens' holding foreign currency deposits. If the economy is very trade dependent and capital inflows are large, the former can be a potent instrument for many non-residents are likely to hold deposits. Foreign currency needed for trade transactions can be separated from the local currency markets. If citizens have no incentives to switch deposits between different types of currencies, stability in the exchange market can be achieved. Fiscal policy has a largely indirect effect on exchange rate management. Massive and recurrent deficits can make the task of maintaining a stable nominal rate and a realistic real effective exchange rate very difficult for monetary authorities. Consistency between monetary and fiscal policy can help to make their task easier.

If a country has a non-competitive real effective exchange rate for a particular industry or commodity, government policymakers have three options: (1) currency devaluation; (2) subsidies to the target industry; or (3) abandonment of the industry as an export sector.

⁴ An intervention in the exchange market is said to be sterilized if the central bank prevents the domestic money supply from being affected.

Devaluation is more difficult to sell politically but does not trigger countervailing, retaliatory actions such as antidumping duties that an industry-specific subsidy program may incur.

3.3.2 Liberalized Trade Regime

A basic premise of neoclassical economics is that competitive market forces will determine efficient resource allocation. Therefore, in pure theory no tariffs or quotas are advisable. However, in practice trade restrictions are common and motivated out of a need to generate revenue and protect infant industries that have the potential to be competitive in the medium term. Unfortunately, trade policy has often been held hostage to rent-seeking elements in society and has protected industries and activities that are inherently uncompetitive and inefficient. Differential access to political power and effectiveness in mobilizing and using lobbying resources explain the persistence of questionable trade policies. Empirically, closed or restrictive trade regimes are marked by lower GDP and export growth rates than economies with open trade regimes or economies in the process of adjusting (Krueger, 1978; Lal and Rajapatirana, 1987).

In a first-best scenario, a country with a closed trade regime and domestic price distortions should launch a macroeconomic stabilization program (realignment of the exchange rate and reduction in the budget deficit) before undertaking a trade policy reform program. Otherwise, the lowering of protection measures could lead to a rapid rise in imports due to an overvalued currency and excessive aggregate demand, which will worsen balance of payments and increase debt management pressures. The main elements and standard sequencing of a trade reform program are (1) the conversion of quantitative restrictions (quotas, bans, licensing arrangements) to tariffs (called "tarification" in the trade literature); (2) equalization of tariffs; and (3) tariff reduction. Quotas and bans are particularly distorting, because they transfer economic wealth to private agents at the expense of consumers and the government, and they create opportunities for rent-seeking behavior. They also exempt the local producing firm from the discipline of international competition. Converting them to tariff equivalents links domestic to international prices and generates revenue for the government. The next phase should seek to reduce the dispersion of tariff rates so as to more or less provide the same effective rate of protection for each commodity while preserving the fiscal position of the government. Rapid tariff reduction without compensating revenue measures can worsen the budget deficit position, thereby undermining internal liberalization. Efficient implementation of additional sales, value-added, and income taxes is often a necessary element of the overall reform. The last step in a program of trade reform is the reduction of the average tariff level in order to spur the international competitiveness of export products and stimulate local import substitutes to be more efficient.

In a second-best scenario, when a country decides on an export promotion campaign, policymakers should:

- (1) reduce tariffs on imported raw materials and intermediate inputs used to generate export value added;⁵
- (2) generally eliminate quantitative restrictions such as export bans, import quotas, minimum pricing, state trading monopolies, and licensing arrangements;
- (3) lower export taxes;
- (4) improve export credit financing; and,
- (5) strengthen export administration services, such as port and customs-clearing procedures, phytosanitary inspections, and market information dissemination.

In a third-best scenario, a country can set up a free-trade zone (FTZ) where firms located inside its boundaries are exempt from trade restrictions and can enjoy other incentives such as tax holidays, unlimited transfer of profits, and access to subsidized infrastructure and utilities.⁶ FTZs can be useful in attracting foreign investment and demonstrating a country's reputation as a reliable exporter. However, as the rest of the economy liberalizes, the benefits are diluted. If foreign investors are "footloose," transfer little technological and managerial know-how, and use mostly imported materials, the only immediate benefits to the host country will be employment generation (Wilson, 1992).

If exporters face tariffs that increase their cost of production vis-a-vis international competitors, the policymakers are placing their country at a disadvantage. Bans, quotas, taxes, minimum pricing, state monopoly boards, and licensing arrangements reduce incentives to enter export production, dampen competition and technological innovation, and contribute to corrupt practices. Export taxes clearly lower the return to producers and make the final price of the product higher than it would be, thereby reducing price competitiveness in foreign markets. Lack of export financing, as well as weak information and marketing systems, are also impediments to enhanced export performance. Clearly, the most difficult export reform measure to undertake is the reduction of export taxes, because they can account for considerable revenue generation. The challenge is to quickly develop alternative revenue sources. In practice, a high

⁵ A popular operational mechanism is a duty drawback system wherein duties paid on imports used in final exports are reimbursed based on input coefficients and wastage factors. The system is management intensive and requires constant updating of coefficients, the creation of bonded warehouses, and constant monitoring to prevent abuse. In developing countries with limited administrative and supervisory capacity, duty drawback systems should be discouraged.

⁶ FTZs are also called EPZs (export processing zones) and industrial parks in the export promotion literature.

initial level of fiscal deficit complicates tariff liberalization and results in a generally less ambitious reform program (World Bank, 1992).

If the country is pursuing a broad trade liberalization program, export promotion may conflict with import reforms, especially the prescription of uniform tariff rates and optimal taxation. According to the literature on optimal taxation, a country may derive a terms of trade benefit if it is the dominant producer of a product by applying an export tax rate equal to the inverse of the elasticity of demand (Corden, 1987). Most developing countries, however, do not enjoy dominant market positions in international commodity markets. In addition, they tend to face inelastic demand so the optimal tax case is a special one (e.g. OPEC and oil, Pakistan and *basmati* rice, Egypt and long staple cotton). The more relevant conflict is the one between the call for uniformly lower tariff rates and export incentives. A possible compromise is a staggered implementation program wherein reduction of tariffs on imports used for export promotion could precede a more general reduction in order to strengthen the export sector immediately.

3.3.3 Competitive Financial Markets

Usually macroeconomic and trade liberalization reforms need to be accompanied by reforms in financial markets. Developing countries have often repressed financial markets, characterized by negative real rates of interest induced by credit controls. These negative rates stymie the mobilization of domestic savings, lead to financial disintermediation over the medium to long term, and retard institutional development. Formal lenders tend to be non-competitive. They also ration credit, servicing only a very small portion of the economically active population due to informational, collateral, and transaction costs problems. Finally, they suffer from large under- or non-performing loan portfolios and offer a limited range of financial services. In the area of export finance, extremely conservative lending practices can limit the availability of credit to new or potential exporters who lack sufficient collateral or a long track record of exporting. The cumulative effect of a poorly functioning financial market is that savings are not intermediated and domestic investment lags. Financial constraints prevent willing and able entrepreneurs from starting and expanding business activities.

In order to improve the functioning of financial markets, the most significant single change has to be a rise in the level of the real rate of interest to a low positive range. Fiscal deficits and money creation must be controlled to reduce the rate of inflation. This internal stabilization, in turn, results in higher real interest rates. With reduced inflation, the demand for financial assets is usually stimulated, as measured by the ratio of quasi-money to GDP. When this ratio rises, more resources are available for lending.

Positive real interest rates on deposits also assist the government in improving net international reserves. In the first phases of adjustment, net reserves can be depleted as tariff liberalization cheapens imports. However, with exchange rate devaluation, export promotion, and real rates of interest higher than international rates, greater capital inflows should be

attracted, strengthening foreign reserves. After successful adjustment (over five years or so), net reserves usually increase, providing the country with greater capacity to import.

A second fundamental step in the financial liberalization process is the freeing of interest rates and the elimination of lending quotas. The removal of interest rate ceilings and sectoral allocations allows banks to lend to the more dynamic sectors of the economy and to earn higher profits due to a larger margin of intermediation and less default exposure. Strong, profitable banks also make monetary policy a more potent instrument of macroeconomic management. A banking system characterized by a large number of weak institutions constrains the monetary authorities' ability to use open market operations and the discount rate as instruments.

Other important reform elements include strengthened prudential banking regulations and supervision, privatization of banks, reduced barriers to bank entry, computerization, banking industry staff development and training, and organizational reform. These institutional and microlevel changes are of immediate interest to borrowers and savers. Improved bank supervision protects depositors and builds confidence in the banking system. Interest rate liberalization, privatization and lower barriers to entry promote competition and service innovation. Computerization, organizational restructuring, and personnel training permit consumers to receive faster service and access a greater number of financial products. For small- and medium-scale entrepreneurs, improvements in access to financial services and the lowering of transaction costs are primordial concerns. Because of informational asymmetries and limited borrower collateral, the public sector may have to share bankers' risks for the sake of promoting investment and growth.

3.3.4 Competitive Primary Input Markets

If primary input markets are not competitive, exporters will be at a disadvantage vis-à-vis some international competitors because they will pay more than the true economic or shadow price for the inputs used in export production. In most developing countries, factor markets—capital, land, and labor—have not been studied in great detail. Observable imperfections exist in all three but, in the case of labor, the problems seem more pervasive and clearly affect international price competitiveness. One of the distinguishing features of the four newly industrialized Asian countries (South Korea, Taiwan, Hong Kong, and Singapore), compared to other countries with outward-development strategies, is that they all possess relatively docile labor forces, very low or no minimum wage laws, a high degree of wage constraint, and large public investments in skill formation. Their exceptional wage productivity bestowed a competitive advantage and to a large degree explained their economic success (Blackman in Wen, 1991).

Capital goods are largely imported, and access to them is largely constrained by foreign exchange availability. Most export promotion schemes address the costliness of capital goods by establishing duty exemption programs, starting revolving foreign exchange accounts, and offering subsidized loans to facilitate purchase. Similarly, land access may be problematic,

especially in Asia and Latin America, where high population densities and inegalitarian colonial legacies have created pressure on marginal lands and given incentives to expand the area under agricultural cultivation through deforestation. Despite the dire consequences for investments in land-saving technology, environmental degradation, and income distribution, poorly functioning land markets have not been shown to affect international competitiveness perceptibly. The shadow values of agricultural land are equal to rental rates and they generally tend to be low globally (Gittinger, 1982). Indigenous property rights regimes, land colonization, and share and rental tenancy arrangements have evolved to suppress the shadow value of land, posing no constraint to international price competitiveness. Not yet undertaken are analyses imputing environmental accounting values for factors of production and linking these to trade policy and competitiveness.

What has clearly affected international price competitiveness as documented in several studies, however, is the wage rate (Wen, 1991). For small open economies, which maintain stable nominal exchange rates and are dependent on the import of capital and intermediate goods, exercising wage restraint can be critical to improving international competitiveness and attaining full employment (Rhee, 1985). Labor is one of the few control variables since most of the other factors are available to competitors at more or less the same terms.⁷ Wage increases in excess of productivity gains inevitably lead to a financial weakening of the employing enterprise, and subsequently to unemployment. High wage costs thus slow business expansion and deter foreign investors.

3.3.5 Non-discriminatory Domestic Taxes

The domestic tax structure should not discriminate among different classes or sizes of agribusiness firms. The tax structure should also not differentiate in a significant way among entirely domestically-owned and -managed firms, partially foreign-owned and -managed firms (i.e. joint ventures), and fully foreign-owned firms. A tax system which penalizes joint venture or foreign-owned firms will discourage foreign investment, limiting opportunities for technology and skills transfer, foreign capital investment, and access to international market networks.

In some developing countries, particularly many found in Latin America and Sub-Saharan Africa, government regulations and taxes are so onerous as to discourage the emergence of formal agribusiness firms. Complying with the regulations and taxes is so costly and time-consuming, particularly for smaller, less well-capitalized firms, that many firms prefer to operate in the informal sector. Clearly, excessive regulation and high levels of taxation on firm purchases, profits, sales or turnover will have a negative effect on agribusiness development. While there is a vast literature trumpeting the virtues of the informal sector, existence of a large,

⁷ This may not hold if capital goods are fabricated locally at a cost well below imported capital equipment. These locally produced capital goods would be available in the domestic or regional market but perhaps not internationally, due to high transportation costs, limited international knowledge of the full range of alternative technologies, or limited domestic production capacity and ability to respond to increased demand.

burgeoning informal sector with a small and weak formal sector is not necessarily an advantage, particularly in export-led agribusiness development. Rather, it is evidence of discriminatory taxation which distorts incentives. By escaping the regulatory and taxation nets, informal firms are able to operate in domestic markets, usually by remaining small, nimble and not highly visible. Export-led agribusiness development requires, however, access to capital and financial markets, as well as achievement of scale economies in input procurement and product assembly, processing and transport. Jaffee (1993) observes that "export-oriented agribusiness processing and trade has tended toward high rates of concentration with between three and ten firms accounting for the bulk of capacity and trade" in a particular industry in a particular exporting country (pp. xi; 48-56).

Jaffee also notes in his review of high-value export success stories that differential tax treatment of firms in leading commodity subsystems relative to other agribusiness firms, through tax holidays and investment tax credits, is a "microeconomic intervention" which does not offset the negative impacts of unfavorable macroeconomic conditions and policies (p. 58). A similar conclusion about the effectiveness of export processing zones (EPZs) is also reached by the World Bank; as a policy instrument EPZs are no substitute for broader trade policy reform that leads to a shift toward export-oriented development (see World Bank, Policy and Research Series No. 20, 1992).

3.3.6 Domestic Regulatory Reform

For an agribusiness development program (including outward-oriented trade reform) to succeed, it must be complemented with domestic regulatory reforms that remove disincentives to market competition. Policy-generated barriers to competition can represent significant constraints to efficient development and lower supply response. These barriers include restrictions on entry and exit, limits on the size of firms, including licensing of new capacity, restrictions on ownership, differential treatment of public and private enterprises, discriminatory taxation, inflexible labor regulations (no authority to fire), and administered prices. Such restrictions limit development and growth in several ways.

Price and Distribution Controls. Administered prices and distribution controls, used in many developing countries as a means of allocating goods on a priority basis and minimizing the effect of short-term supply shortfalls, have had negative effects on competition. Controlled prices tend to induce collusion among firms. When controlled prices do not ensure adequate profits, they often lead to under-production of the price-controlled goods, reduce incentives for entry by other firms, and discourage investments in new machinery or new techniques by existing firms. The quality of the product or service tends to remain low or decline, as producers may substitute lower-quality raw materials in production. The physical stock used to provide the service or produce the good may also deteriorate. Also price controls may induce cheating on weight and content (e.g. fertilizer adulteration). If equity and risk considerations dominate, the use of targeted subsidies and means-tested transfers would be more appropriate than pan-territorial pricing and procurement decrees.

Another less common but equally debilitating control is domestic content legislation. It is often used for saving foreign exchange and reducing import dependence. These laws tend to be inappropriate instruments for balance-of-payment support because they usually end up restricting the producers' choice in being able to use the most economical combination of inputs. Thus, the international competitiveness of the product is diminished, resulting in fewer export sales. If domestic content laws are required in production, the country is either facing export subsidies in a competitor country or has no comparative advantage in the activity. If the country is facing unfair trade competition, it should either protest internationally (via the GATT) and/or invoke retaliatory measures. If not, it should let market forces decide the choice of production technique and focus on generating foreign exchange.

Privatization/Restructuring of Public Enterprises. Divestiture or privatization of public enterprises is often necessary to improve management and reduce heavy financial losses. The synergy stemming from the privatization of banking and also of a specific industry will generally lead to the most competition. The priority given to the parastatal sector for the provision of basic goods and services created monopolies, which were frequently not justified by economies-of-scale arguments. Privatization and restructuring, however, usually take long periods of time. Great care should be taken to see that they are well implemented. This requires careful advance planning and monitoring of implementation. Without such care, a public monopoly could become a private monopoly, or services may be so curtailed as to hamper economic activity.

Another problem area can be public sector procurement systems when a public enterprise retains a significant role in the marketing or export of a particular commodity. Major barriers to competition exist if the procurement process is dominated by (1) opaque rules; (2) unequal information; (3) preferential treatment of certain domestic suppliers; (4) collusion among preferred suppliers; and (5) overpricing of substandard products.

Even in the total absence of public sector enterprises, the private sector will not be a magic cure for the problems of the agribusiness sector. The private sector in many cases has to learn how to operate in a liberalized economic environment and how to make investment and trade decisions on the basis of risk-reward calculations. The effects of competition will not be felt immediately. Thus the government needs to maintain its resolve during the lengthy privatization process.

Entry and Exit Barriers. Difficult entry and exit conditions are common in developing economies and have serious consequences. For example, complex licensing procedures discriminate against small enterprises, which cannot afford the costs involved in acquiring a license. The licensing procedure can contribute to long delays in the start of new business activities, contribute to graft, and force many small businesses to underinvest and function in the underground economy because they are not "legal" and therefore not eligible for loans or other formal sector assistance. Similarly, limits on firm size introduce inefficiencies as firms may not operate at optimal scale. Licensing procedures should be eliminated where

possible or at least greatly simplified and made predictable. The qualifying criteria need to be clearly presented and publicized and a convenient turnaround timeframe honored.

Policies designed to foster infant industries often ossify into protection for monopolies and oligopolies. Entry barriers prevent incumbents from facing the challenge of new entrants, who may have more cost-efficient technology and management techniques. Exit barriers may include anti-closure rules, inadequate bankruptcy and foreclosure regulations, and government subsidies. Another exit barrier could be high severance pay regulations. Entrepreneurs become excessively cautious in their investment plans and management style when they lack the ability to exit. The result is wasted resources, high consumer prices, and added expenses for the public treasury.

Other barriers-to-entry policies may include strictures on the number of expatriate personnel that can be hired, foreign equity participation in joint ventures, and the repatriation of profits. The more restrictions there are, the less likely foreign direct investments and joint ventures will be forthcoming.

Legal Framework. Weak or non-functional legal systems also impede competition and market development. Weak contract enforcement law inhibits long-distance and "sight unseen" trading. In the absence of legal recourse for the settlement of disputes, trade will likely be carried out on a cash and carry basis with frequent inspections, substantially raising transaction costs, or along familial, ethnic, racial, or religious lines, where social sanctions can substitute to some extent for legal enforcement mechanisms. Where legal recourse may exist theoretically, the time and financial costs of pursuing a judicial remedy may be so high as to deter all but the richest individuals or firms or the most aggrieved from exercising their rights. The consequence of no credible enforcement is less risk taking and less business activity.

Weak laws governing asset transfers, financial restructuring, bankruptcy, and corporate liability can also lead to risk-averse investment decisions, because the economic costs of failure are substantially higher than in developed economies, where the individual owners of a failing firm can easily avoid economic ruin. The lack of a financial safety net contributes to less product differentiation, more compressed intra-industry cost structures, lower technical efficiency, and more locational competition.

3.4 More Effective Markets through Complementary Public and Private Sector Roles

Previous sections have discussed removing distortions to achieve a neutral policy stance through the liberalization of macro price regimes. The following sections focus on positive and complementary steps that the public and private sectors can take to enhance the impact of the policies mentioned above. The premise of the following is that economic management is an important function of both the public and private sectors. It includes various functions. With specialization and coordination of these management tasks, the public and private sectors can together achieve better economic results than without.

Countries seeking to promote the development of agribusiness and countries undergoing sweeping political changes may have a common goal. That is, both sets of countries may be in the process of shifting their economic governance from more centrally-planned to more market-based system to make their markets operate more effectively. Formerly centrally-planned economies may be creating markets from scratch. Thus some observations on the functions that government and the private sector can best perform in these situations will be valuable. These observations are consistent with the principle of government intervention to combat market failure, but tend to lead to more proactive recommendations. This section discusses an approach to complementary public/private action, based on the lessons of recent economic history.

3.4.1 Economic Management Functions

This discussion of the management of policies that affect agribusiness is based on the following concepts:⁸

- Planning:** Analysis done by government or firms in anticipation of the production of agribusiness goods or the provision of services to or by agribusinesses.
- Coordination:** Systematic, coordinated decisionmaking leading to consistency of policies and regulations toward agribusinesses and/or to efficiency of agribusiness operations.
- Regulation:** Establishment and enforcement by the government of grades and standards for agribusiness inputs and products, phytosanitary and sanitary requirements, rules for business practices, and in some cases monitoring of agribusiness operations (e.g. commodity movements or buying and selling practices).
- Control:** Government's direct intervention in markets by setting agribusiness input and intermediate and final product prices, in production and marketing of inputs and products, typically through parastatal organizations, and in setting production targets and market shares (by organization type or region).

Planning includes data collection and organization, leading to forecasting and other forms of analysis. It does not include targets for production. On the other hand, it is important for the government to know levels of crop production to assess the need for building and maintaining infrastructure and to make food security assessments. The private sector should also engage in business planning. Development of marketing or sales plans is one form of planning in the private sector that is often deficient in agribusinesses in developing countries.

⁸ See Ender et al., 1992.

Coordination is probably the most elusive of the functions, but in some ways the most important. Coordination can result in continuity and stability, an important characteristic of the resulting policies. Over the long run, if policies are unstable, the investment climate will be uncertain, investment will be less than it might have been, and much less agribusiness employment and income will be generated. Effective public sector-private sector collaboration and coordination requires effective lines of communication between the government and agribusiness firms. For example, in designing enforceable commodity grades and standards, government officials would be well-advised to consult commodity traders and firms. In this way, the grades and standards would more likely reflect actual trading practices and consumer preferences.

Regulation is often thought of as burdensome to business. Provision and enforcement of commodity grades and standards is one example of regulation that can generate significant benefits to producers, agribusiness firms, and consumers. In the shift to market-based economies, the importance of positive regulation should not be forgotten. The degree of competition in an industry is affected by industry structure, the effectiveness of regulations aimed at business practices, and various economic policies and the incentives (or disincentives) that these provide to different classes of agribusiness firms. There will tend to be stronger competition when there are limited barriers to entry, more firms, and when regulations such as anti-trust laws are enforced.

The example of commodity grades in Pakistan shows the value of positive regulation to market agents. The government marketing parastatal, PASSCO, conducted experiments in which it sold cleaned wheat at higher prices than the usual, uncleaned wheat. Because the millers knew that the quality was improved and that their milling costs would be lower, they were willing to pay more for the wheat. Similar experiences have been observed in many other countries.

Control is the most extreme function of management, leading to the highest level of government intervention in the agribusiness system and ultimately responsibility for outcomes. APAP studies in Pakistan, and AMIS studies in Sub-Saharan Africa, found that the main constraint to agribusiness development was the government's domination of the system.⁹ Public sector control is what many of the policy reforms outlined above are aimed at removing or reducing.

⁹ Two Agricultural Marketing Improvement Strategies Project studies for the Africa Bureau also show how excessive government intervention can impede agribusiness development. See Holtzman, J.S., R.D. Abbott et al., *Agribusiness Development in Sub-Saharan Africa: Suggested Approaches, Information Needs and an Analytical Agenda*, Abt Associates, AMIS Project, Prepared for AID/Washington's AFR/ARTS/FARA, September 1992; and Holtzman, J.S. with T. Wittenberg, J.C. Abbott and M.D. Newman, *Towards an Africa Bureau Agricultural Marketing Strategy and Action Plan*, Abt Associates, AMIS Project, Prepared for AFR/TR/ANR, June 1990. Six case studies of Pakistan agro-industry are summarized in RONCO Consulting Corporation's *Agribusiness Industry Case Study Report* (December 1990).

While planning and some control are necessary in all economies, the locus and concentration of these is one key question today. In developing countries this translates into some of the following questions. Will governments give up control of banking and various agribusiness industries? Will they, on the other hand, provide the standards and other regulation that are necessary for the effective and equitable functioning of a modern economy?

Part of what sustains competition is the government's approach. Its resolve to anticipate problems before they arise, by both thorough planning and timely, effective monitoring and evaluation, and after they arise, through flexible implementation of policy reform and proper regulation, will result in more efficient production in agribusiness. It will also lead to greater confidence among the agribusiness community in the stability of the government's policies, which in turn leads to more private investment. Conversely, by taking control, the government makes problems its own and usually makes the solution more difficult.

3.4.2 Public and Private Sector Roles in Major Types of Economic Systems

To understand the importance of these management functions to the modern economy, one can examine their distribution in a simplified typology of modern economic systems. For expositional purposes, the systems include the polar cases of *laissez-faire* and central planning. The former involves the most limited possible role for the public sector, which provides defense and little else. The centrally-planned economy, by contrast, has almost no role for a private sector, since the government plans for and delivers whatever the consumer and the economy need. A mixed economic system, toward which many current economies are evolving, is the third system shown in Table 3-1.

While the polar cases are likely to be familiar to many readers, the distribution of functions in the mixed economy may be more interesting. The centrally-planned system puts the entire onus of management on the Government, and the ideal *laissez-faire* economy generally ignores the possibility of coordination beyond that of individual firms. The mixed economy, by contrast, presents the most possibilities for cooperative action. Planning, for example, could be carried out separately or coordinated between the public and private sectors. Regulation can be a positive force when the needs of the private sector are known to the public sector and taken into account.

Another way in which one can look at these systems is from the point of view of satisfying consumers, namely providing high-quality goods and services efficiently. In the totally free market system, it is not uncommon for there to be collusion and other abuses. These eventually lead to various forms of regulation of workplace and product safety and of pricing and other business practices. At the other end of the spectrum, the centrally-planned system has a very difficult time satisfying consumer demands because it does not get feedback from consumers through a pricing system, nor does it have an incentive-based system of management or worker performance. In addition, because there is no incentive to differentiate products and produce higher-quality goods, private sector innovation and risk-taking are discouraged. Since it is the objective of an agribusiness commodity system to satisfy the demands of consumers, it

Table 3-1 Roles of Public and Private Sectors in Main Economic Systems

Function	System		
	Laissez-Faire	Mixed	Centrally Planned
Planning	Private sector	Private, public sectors each plan own products; planning may be coordinated (e.g. land-use master plan).	Public sector
Control	Diffused among private firms, but may become concentrated in some agro-industries.	Diffused among private firms and public agencies to moderately centralized.	Public sector
Regulation	Minimal	Moderate to substantial	Minimal regulation where government is chief economic actor.
Coordination	Private sector	Private & public sectors each coordinate own activities (and with each other).	Public sector (difficult to achieve)

behooves the designers and implementers of a mixed system of economic management to pay attention to the lessons from both polar systems.

3.4.3 Appropriate Roles for Specific Economic Actors in Mixed Systems

The nature of public and private goods, as well as the functions inherent in economic management, lead one to consider and propose appropriate roles for the public and private sectors by specific type of economic actor. In the context of development and foreign assistance, bilateral and multilateral donors can be added to domestic public and private economic actors. Finally, some economic agents may not fall conveniently into these categories.

ries—e.g. universities or NGOs, and banks in developing countries are often parastatal institutions.

In order to facilitate and enhance agribusiness development, these various economic actors should collaborate in a rational, consistent, and complementary fashion. Once some high-potential commodities and/or industries have been identified, facilitative and support action will be needed in various areas. Some of these action areas are listed in Table 3-2. Some areas have public good traits that justify government action. Others have positive or negative externalities associated with them, which again may require government intervention. Where these externalities are not present, private businesses should assume responsibility for all production, marketing, and trade activities. Public intervention in these areas has been marked for the most part by inefficiencies and lack of agility in responding to changing market forces (Rhee, 1985).

There is clearly a role for government action and regulation in the cases of contract enforcement, setting and enforcing of commodity grades and standards, and investment in and maintenance of physical infrastructure such as utilities, roads, and telecommunications. A major government role is required because of the lumpiness of required investments, the difficulty of either restricting or controlling use, and the tendency for natural monopolies to emerge. In establishing viable market information systems, government can play a predominant role, at least initially. The reason for this is that market information is typically asymmetrically distributed in developing countries, leading to unequal bargaining power among food system participants. The rationale for public sector investment in market information systems is probably strongest in the case of staple food crops and livestock products, which are produced by many small farmers. In contrast, public agencies usually have great difficulty developing effective and timely market information systems for export commodities and specialty, high-value niche commodities. In those cases, trade associations or producer organizations should be able to take the lead in identifying reliable data sources, obtaining data, and disseminating information to members for a fee.

It is extremely important for developing countries wishing to enter new lines of agribusiness exports or to target new high-income markets to appreciate the importance of international product quality standards. Key factors affecting the ability of developing countries to export to high-income markets are phyto-sanitary regulations, importing country restrictions on packaging materials (with respect to materials used and their disposability), and importers' requirements concerning the packaging and labeling of shipped produce and product quality, uniformity, maturity and appearance. As Newman, Abbott et al. (1993) have shown in a recent assessment of the EC Single Market, formal regulations and informal requirements may differ markedly from high-income market to high-income market, even in the EC, where the member countries are slowly moving toward a more uniform set of standards.

One Sub-Saharan African country that successfully penetrated European markets during the 1970s and 1980s was Kenya, which expanded horticultural exports manyfold. Schapiro and Wainaina argue that a quasi-government agency, the Horticultural Crops Development Authority

Table 3-2 Appropriate Functions for Economic Actors, by Action Area

ACTION AREAS	PUBLIC GOOD TRAITS	EXTERNALITIES	GOVERNMENT	DONORS	UNIVERSITIES	BANKS	ASSNs & NGOs	FIRMS (LOCAL & FOREIGN)
Physical Infrastructure	Yes	Can have positive cross-commodity spillovers.	Plan, coordinate, regulate, control	Finance, TA	Analysis	Finance	Plan	Benefit from
Setting & Enforcing Financial Standards	No	Positive if provided	Plan, regulate	Technical Assistance	Analysis	Analysis	Planning input, coordinate	Subject to
Setting & Enforcing Commodity Standards and Measures	Yes	Positive if provided. Lower transactions costs, which lowers marketing costs.	Plan, regulate	Technical Assistance			Planning input, coordinate	Subject to
Collecting & Disseminating Domestic & International Market Information	Yes	Positive if provided. Better market information will lead to a more transparent, competitive marketing system.	Plan, coordinate, regulate	Finance, TA	Analysis	Plan	Planning input, coordinate	Plan
Implementing & Monitoring Quality Control	No generally, sometimes yes	Positive if provided. New firms benefit from an established reputation.	Coordinate		Analysis		Plan, coordinate	Plan, coordinate
Finance to Agribusinesses	No		Regulate	Target resources	Analysis	Plan, coordinate	Plan	Plan
Research and Extension	Yes		Plan, regulate, coordinate	Finance, TA	Plan, coordinate		Planning input	Plan
Contracts Enforcement	Yes		Regulate	Technical Assistance	Analysis		Analysis	Subject to

Table 3-2 Appropriate Functions for Economic Actors, by Action Area (continued)

ACTION AREAS	PUBLIC GOOD TRAITS	EXTERNALITIES	GOVERNMENT	DONORS	UNIVERSITIES	BANKS	ASSNs & NGOs	FIRMS (LOCAL & FOREIGN)
Higher Education	Yes	Positive if provided. Private firms benefit from better trained work force.	Plan, coordinate, regulate	Finance, TA	Plan	Plan	Planning input	Planning input
Vocational Training	Yes	Positive if provided. Private firms benefit from better trained work force.	Plan, coordinate, regulate	Finance, TA	Plan	Plan	Planning input	Planning input
Domestic Market Research	No		Coordinate	Technical Assistance	Analysis	Analysis	Plan, coordinate	Plan
Product Development	No		Regulate (patents, licensing)	Technical Assistance	Analysis	Analysis	Plan, coordinate	Plan, coordinate
Environmental and Safety Regulations	No	Negative if unenforced	Plan, regulate	Technical Assistance	Analysis		Plan	Plan, comply with
Trade Negotiations	No	Positive or negative	Plan, coordinate, control	TA can help governments prepare in some cases.	Analysis	Analysis	Planning input, analysis	Analysis

(HCDA), was instrumental in setting grades and standards for horticultural export crops and in ensuring that exports shipped from Nairobi International Airport met those standards (see World Bank, 1989). Furthermore, HCDA set up a licensing system whereby exporters had to meet minimum financial and reliability requirements. By establishing a reputation for consistently high-quality horticultural exports, as well as being a reliable supplier, Kenya became the largest Sub-Saharan African supplier of counter-seasonal fruits and vegetables in Western Europe.

The development of Chile's temperate fruit export industry was in large part the result of public-private collaboration over a thirty year period. It also demonstrates the fundamental importance of getting macro prices right, as progressive devaluation of the *peso* beginning in 1983 led to a nearly three-fold expansion in the dollar value of fruit exports from 1983 to 1988 (see Barriga et al., 1990).¹⁰ A key financial sector reform measure was the banking law of 1975, which permitted commercial banks to engage in long-term financing. The Chilean Development Corporation (CORFO), a government development bank, reduced its direct lending to fruit exporters by the late 1970s and acted as a broker in channeling international funds to the private sector via commercial banks. Foreign aid funds were channeled through the Central Bank to public development banks and private commercial banks. All of these measures expanded liquidity and stimulated competition. Loan disbursements to the private sector accelerated sharply from 1975 to 1979 (before falling off during the recession of the early 1980s). Before 1975 CORFO also played a critical role in financing the infrastructure for the fruit and vegetable industry.

The Agricultural and Livestock Service (SAG) took the lead in quality control and in arranging for the USDA to inspect fruit destined for export to the U.S. in Chile. As in Kenya, a quasi-governmental agency, *Fundacion Chile*, provides inspection services for fresh fruit, including laboratory testing, and applies its widely-recognized and respected quality seal.¹¹ SAG delegated authority for quality control to private exporters in 1976. The Exporters Association (created in 1935) reached an agreement in 1986 with the Catholic University of Chile, which implemented a control system whereby university specialists visit all packing houses and cold storage facilities to verify that fruit for export meets international standards.

Both a government export promotion agency, PROCHILE, and the Exporters Association promote Chilean fruit at international trade fairs, as well as providing exporters with information about marketing opportunities. Research and extension services have been provided to large farmers through the National Agricultural Research Institute (INIA), working through Technology Transfer Groups of 10-20 large growers, and to small farmers through the National Institute for Agricultural Development (INDAP). Agricultural research has been supported

¹⁰ This discussion draws heavily from Barriga et al., *The Fruit and Vegetable Export Sector of Chile: A Case Study of Institutional Cooperation*, Agricultural Marketing Improvement Strategies Project, October 1990.

¹¹ *Fundacion Chile* is a mixed Chilean Government and ITT venture.

financially by the Ford and Rockefeller Foundations and conducted by INIA and Chilean universities.

3.4.4 Changing Public-Private Roles Over Time

The nature of public and private roles goods is a good starting point for assigning functions to different actors, but the correspondence is not always clear, and government may have to intervene in developing countries and perform a function which is carried out by private agents in more advanced market economies. One example is the exercise of temporary control by government to overcome lack of knowledge in areas such as risk management. A country may have a comparative advantage in the production of a perishable horticultural commodity, but its export may be foreclosed by the unwillingness of banks to provide finance. In this case, bankers may have to be induced by loan guarantee funds (which have a direct effect on the cost of business) to assume the initially higher risks of export financing. In the case of market information dissemination systems, private firms and associations know far better what type of information is desired, how it should be presented, and are more sensitive to timeliness than public sector agencies (Holtzman et al., 1992 and 1993). Thus, the public sector may start such a service because of the high initial cost, but it might later be entirely or partly privatized.

Another example is joint action by firms or individuals in the private sector. Private groups such as **trade associations, producer groups, labor unions, and non-profit educational organizations can supplement the action of private businesses** in important ways. Whereas the individual investment and search costs in exploring overseas markets may be high and payoff prospects limited, businesses can pool resources and more economically engage in trade promotion, market research, and lobbying activities. These groups can complement government expenditures on behalf of a particular industry by being more focused and responsive to constituent needs and desires. They can serve as a ready medium of communication and a channel of assistance.

In relatively low-income developing countries, specialized trade and industry associations are uncommon.¹² In those poorer countries where there are leading export commodity subsystems, there may be potential for a commodity-specific trade association. In the short to medium term, such associations are unlikely to be entirely self-financing and self-sustaining. This provides an opportunity for donor agencies such as A.I.D. to offer financial and technical assistance over a number of years to bridge the gap between inception and (financially) independent status.

As mentioned above, the wage rate has clearly affected international price competitiveness. **Wage policy is an area in which planning, coordination, and at times regulation or**

¹² In Francophone African countries, a common umbrella business association is the Chamber of Commerce. It is a broad, undifferentiated association of formal sector and larger-scale enterprises. Typically, its leaders are appointed by the government, and funds are often raised through mandatory levies on imports and exports.

even control can be used effectively. A sensible incomes policy that seeks to regulate wages and salaries so as to reflect changes in productivity thus becomes a desirable government intervention. In order to achieve that end, government, employers, and labor unions have to maintain a continuous dialogue and sensible, non-acrimonious negotiations either through formal or informal processes. Ideally, government should act as an honest broker, but it may need to exercise more control if a consensus cannot be reached. In the case of the successful Asian NICs, governments and industries have worked harmoniously in the wage determination process, and labor has either been acquiescent or passive in affecting the process (Rhee, 1985; Wen, 1991).¹³

Many instruments exist to modulate labor and wage policies, and, if coordinated, most can be used concurrently. Some measures are proactive, while some are used in response to a crisis situation. Others are high-risk and best undertaken only by countries that have budget surpluses and strong economies.

Proactive Instruments:

- **Wage restraint,** or the process of linking wage increases to productivity gains, is best achieved through coordinated open and continuous dialogue between management and labor. Creating an atmosphere of trust, mutual respect, and open access to accurate production and financial data is the most difficult task. Once in place, wage restraint policies contribute to fewer lay-offs during periods with declining sales and less incentive to invest in labor-saving technology. For wage restraint to work, government, employers, and labor need an institutional framework for constant exchange, or a social consensus that government will set general guidelines and norms that will be followed without great enforcement costs.
- **Differential wage increases** can be used by employers and governments to stimulate the supply of strategic skills. Usually government can set minimum wages for these scarce skills that are disproportionately higher than wages for less scarce skills.
- **Employee share ownership plans** can reduce cash payments to employees in return for job security, future equity earnings, and shared management in the enterprise. The firm benefits by having a better cash flow.
- **Flexible wages** offer workers a relatively low base salary and variable quarterly or annual bonuses in accordance with the profitability of the company and their contribution to that profitability (i.e. performance during the bonus period). This reduces the pressure on the firm to lay off employees during periods of slack sales.

¹³ South Korea is the only one of the four with a significant history of labor strife. Strictures on the structure and range of permissible activities have prevented labor unions from evolving along Western paths (Rhee, 1985). In the other countries, wages have been largely determined by market forces, but they have risen rapidly, especially in real terms (Rhee, 1985).

- **Retraining** for low-skilled workers or for workers in declining industries minimizes the transition costs attendant with a strategy of open market competition and specialization according to comparative advantage. Historically, governments normally bear most of the costs associated with these programs but private enterprise can be involved. Increasingly, small-business incubators are being established in areas of high unemployment in the U.S. and, experimentally, in places such as Eastern Europe.

Reactive Instruments:

- **Voluntary wage cuts**, wherein organized labor foregoes wage increases in order to ensure the survival of a troubled enterprise or to help reduce the public deficit. This is a desperate measure, best used when all else has failed.
- **Wage freeze and price controls** are used as a means of stopping spiraling inflation. This is a stop-gap measure, sustainable only for a short period of time until policymakers can implement a more comprehensive economic reform program.¹⁴
- **Corporate bail-outs** can be used to help restructure or merge failing companies in order to prevent significant job loss. Their use should be highly selective and based on sound financial and management changes. Assisting terminally-ailing, non-competitive companies or industries only increases the social costs of adjustment.

Costly and High-Risk Instruments:

- **Offsetting instruments**, such as industry and government offering of lower nominal wage increases, but having the government grant income tax concessions and provide cheap social services. These measures raise real income but preserve wage cost competitiveness.
- **Selective wage inflation** involves establishing high statutory minimum wages for certain industries deemed non-strategic.¹⁵

¹⁴ Note that wage freezes and price controls can only be used in the very short run. When kept in place for longer periods of inflation, labor productivity (and actual work time on the job) declines. As noted earlier, firms may also tend to cut the quality or absolute level of products or services. In the worst case, a firm may adulterate a product if price controls prevent agro-entrepreneurs from making an acceptable return.

¹⁵ Singapore used this instrument in the late 1970s and 1980s after achieving a level of success in industrialization. Singaporean officials decided to force out "low-tech" industries with limited growth potential and/or few linkages to other sectors. The policy proved to be initially costly during the 1980-81 recession, but with recovery, the policy has resulted in Singapore's producing and exporting more technologically complicated goods and having a better educated and trained workforce than before.

Under a first-best scenario, factor markets are competitive, with markets determining wages—not governments. The four Asian NICs mentioned before have succeeded in modulating labor and wage demands by relying largely on market forces. The second-best scenario is for government, in close cooperation with labor and business, to promote flexibility in labor markets so that improved operation of market forces will reduce the burden on income policies. The elements of such a second-best approach include the following:

- encourage adoption of flexible wages;
- make pension benefits legally portable;
- oppose strenuously non-competitive labor union practices;
- revise severance pay schemes to facilitate mergers; and,
- make large investments in basic education, job training for low-skilled employees, retraining for obsolete workers, and apprentice programs for job entrants.

Keeping wage increases in line with productivity gains in the agribusiness system is important in maintaining and enhancing international competitiveness. As developing country agribusiness systems grow and mature, an increasing proportion of the agribusiness labor force will be found in formal sector firms in the industrial, service and transport sectors. These firms will be subject to formal sector wage rates and labor practices. Given the higher labor intensity of productive enterprises in developing countries relative to industrial countries, labor costs will comprise a significant percentage of private firms' costs. Hence, agribusiness firms need to pay competitive wages to attract skilled workers and managers, but they have to avoid increasing wages faster than gains in underlying labor productivity in order to remain competitive.

3.5 What Can USAID Do?

International donors should serve as catalysts, stimulating the creation of a favorable business climate through strengthened policy analysis and dialogue, concessional aid, the transfer of experiences learned from other countries, the provision of technical assistance when needed, and assisting national governments in minimizing negative externalities and creating positive externalities. Table 3-3 summarizes key policy categories, goals, subcomponents and options, as well as the effect of those options on the agribusiness system. It provides a useful framework for both donors and developing country governments in thinking about crafting an enabling environment for agribusiness development.

Table 3-3 Policy Matrix and Implications for Agribusiness Activities

POLICY CATEGORY	IDEAL GOAL(S)	POLICY SUBCOM-PONENTS	REGIME OP-TIONS	IMPACT ON AGRIBUSINESS	
Exchange Rate	Realistic real ef-fective rate		Free-Floating	<p>(1) Overvalued exchange rate decreases export competitiveness and stimulates import demand.</p> <p>(2) Undervalued exchange rate increases export competitiveness and dampens import demand, including demand for key production inputs.</p> <p>(3) Relatively stable nominal exchange rate inspires investor confidence.</p>	
	Stable nominal rate		Managed Float		
Fiscal	Balanced budget or declining budget deficit as a % of GDP	Tax structure and rates	Simple, progres-sive tax system that relies heavily on income, prop-erty, and sales taxes.		<p>(1) If import and export taxes are the principal source of revenue, they are bound to adversely affect productivity and growth of export crop(s) in question. A broader tax base is advised.</p> <p>(2) If the percent share of expenditures on agriculture and agribusiness is a lesser percent than the ratio of taxes extracted to agricultural value added, the sector is disadvantaged. The long term growth potential of the sector will be lessened.</p> <p>(3) Real levels of expenditures should increase annually, or at least be maintained.</p> <p>(4) Intersectoral allocation of expenditures should be consistent with nationally defined short- to medium-term objectives.</p> <p>(5) Transactions costs can be lowered and foreign investment attracted by an adequate stock of infrastructural goods. In the process of adjustment, infrastructure investments should not be sacrificed and an additional supply of infrastructure may be needed as increased investment and business activity triggers increased demand for power and water. Finally, governments cannot afford to neglect infrastructure maintenance.</p>
	Targeted expendi-tures on vulnerable, low-income groups	Tax collection efficiency	System that focus-es on ease of collection (i.e. export taxes, VAT). Often regressive and discriminatory.		
	Maintenance and improvement of physical and human infrastructure		Level and structure of recurrent expenditures	Military vs. social priorities	
			Level and sectoral allocation of public investment funds	Food security vs. export/industrial crops.	

POLICY CATEGORY	IDEAL GOAL(S)	POLICY SUBCOMPONENTS	REGIME OPTIONS	IMPACT ON AGRIBUSINESS
Monetary	Low inflation (first-best)	Interest rate structure	Control growth rate of monetary aggregates	<p>(1) High inflation rates contribute to unintended income redistribution and foster speculative investments and currency substitution. Productive investments are dampened; savers and fixed-income earners lose. Production agriculture is more disadvantaged than agricultural inputs and food processing, because cost increases cannot be passed on as easily.</p> <p>(2) Flexible interest rate structure that guarantees savers a positive real interest rate and seeks full cost recovery on lending operations helps savers but makes credit more expensive for agricultural and agribusiness borrowers. In the medium- to long-term, more investment should be forthcoming and the banking system will be solvent.</p> <p>(3) Interest rate policy is inextricably linked to exchange rate policy. A floating exchange rate system is incompatible with a fixed interest rate regime, as is managed float with constant growth rates in money supply.</p>
		Forex reserves	Target interest rates	
	Moderate but steady, predictable rate of inflation (second-best)	Open market operations and discount rate		
Financial	Solvent banking system	Prudential banking regulations	Directed credit regime with interest subsidies	<p>(1) Directed credit systems characterized by selective credit allocations, subsidized interest rates, and high lending levels to government entities tend to remain undeveloped, dependent on external concessional funds, and very risk adverse.</p> <p>(2) Liberalized credit systems tend to channel relatively more loan funds to urban-based manufacturing, services and commercial activities. Agriculture is considered high risk. Agribusiness is more attractive, although it depends on production agriculture for supplies. Conservative, risk-averse banking practices may persist.</p> <p>(3) Access to production and export finance can be problematic. Concerted efforts on the part of the government may be needed to reduce informational asymmetries and to encourage banks to adopt innovative risk management techniques.</p>
	Guarantee export finance	Reserve requirements		
	Unrepressed system characterized by positive real interest rates and increasing use of advanced risk management techniques	Deposit insurance	Liberalized credit regime	
		Lending to the government		
		Exchange controls		
Credit controls (global and selective)				

POLICY CATEGORY	IDEAL GOAL(S)	POLICY SUBCOM- PONENTS	REGIME OP- TIONS	IMPACT ON AGRIBUSINESS
Trade	Reduction in import tariffs	Tariff structure	Open trade regime characterized by low tariffs and few QR's. Low rates of protection.	(1) Open trade regimes expose the agricultural sector and the agribusiness system to international competition. More efficient and well-endowed transnational corporations can easily dominate local markets. Countervailing duties may be needed to protect grain and livestock producers from subsidized production in industrialized countries.
	Reduce reliance on quantitative restrictions on both the import and export sides	Quotas and bans	Protected trade regime characterized by high tariff and non-tariff barriers.	(2) Closed trade regimes encourage resource misallocation and inefficiencies. International standards of excellence are rarely attained. Most often agriculture is not as protected as the manufacturing sector, giving more incentives for investment in the manufacturing sector.
	Clear and consistent foreign investment and tax code	Licensing arrangements		(3) Infant industries can be protected and yield positive economic results if there is an effective export promotion strategy based on comparative advantage and supported by sound macro economic and labor policies (i.e. Korea and Japan).
	Development and strengthening of export promotion organizations	Direct foreign investment incentives and tax code		(4) Opaque investment codes, double taxation, limits on repatriation, and excessive red tape discourage direct foreign investment. On the other hand, excessive competition with neighboring countries to attract investments can seriously limit the benefits of direct foreign investment.
	Reduction in export taxes	Quality and safety standards on imports		(4) Concessional food aid programs may have deleterious effects on domestic agriculture, changing tastes and preferences and reducing investment incentives in marketing systems and private storage.
		Concessional food aid		

POLICY CATEGORY	IDEAL GOAL(S)	POLICY SUBCOMPONENTS	REGIME OPTIONS	IMPACT ON AGRIBUSINESS
Labor	Wage increases commensurate with productivity increases.	Wage rate restraint	Acrimonious labor-management relationship with high incidence of labor strikes and stoppages.	<p>(1) Whether formal or informal, the regulation of wages so as to reflect changes in productivity is a critical factor in competitiveness. When labor and management cannot come to an accord, government should act as an intermediary.</p> <p>(2) When labor militancy is high, investments will not be forthcoming. When labor is repressed, social unrest and political instability are likely to occur.</p> <p>(3) Agricultural and agribusiness employers usually do not face unionized labor and tend to have more bargaining power because of surplus labor conditions in most developing countries. The temptation for exploitative practices tends to be present. However, the experiences of Japan and Singapore suggest that enlightened labor policies contribute to greater political stability, higher productivity, higher incomes, and greater effective demand.</p> <p>(4) The benefits of a well-trained, disciplined, and motivated workforce are clear and undeniable to all sectors of economic activity. Below are recommended actions:</p> <p>(a) Improvements in curricula at all levels, teacher quality, teacher remuneration, pedagogical approaches and materials budgets are often needed to yield improvements in student achievement on standardized tests. In agriculture and agribusiness, research and innovation are needed at all levels. What is problematic is the intersectoral allocation of scarce funds. Agriculture and agribusiness should obtain a share of the research and technology development budget commensurate with contribution to GDP.</p> <p>(b) University training in science, engineering, agricultural sciences, computers, and business management and administration needs continued encouragement through scholarships and loans.</p> <p>(c) Entrepreneurs need easy access to supplemental training and official acceptance. In many countries, positions in the government are socially preferred to business.</p>
	Harmonious labor-management relations.	Retraining	Docile, exploited labor force with labor unions banned or very weak.	
		Corporate subsidies	Labor union aristocracy	
		Participatory decision-making and employee ownership	Incomes policy and congenial labor-management relationship	

POLICY CATEGORY	IDEAL GOAL(S)	POLICY SUBCOM- PONENTS	REGIME OP- TIONS	IMPACT ON AGRIBUSINESS
Legal and regulatory environment	Clearly defined property and contract laws	Judicial system	Antiquated system characterized by ineffective tort process, poor property record-keeping, and large body of business regulations and licensing requirements.	Barriers to entry, unclear property rights, and unenforceable contracts reduce the supply response to otherwise positive policy developments. Food system participants are unlikely to enter into contracts that are useful in managing and shifting risks. Investment incentives are likely to be dampened for production agriculture and agribusiness enterprises.
		Cadastral surveys and land registry		
	Fast and fair resolution of contractual disputes	Government regulatory agencies	Evolving system characterized by working judiciary, enforcement of contracts, improved property recordkeeping, and a smaller, more transparent body of regulation.	
	Transparent, rational, and enforceable set of regulations			

Going beyond the framework presented in the *Policy Matrix* of Table 3-3, donors need to stress that the most appropriate role for developing country governments is to provide goods and services which have a public good nature, minimize negative externalities, represent the trade interests of the nation in multilateral fora and in bilateral trade negotiations, and pursue sound macroeconomic and sectoral policies. Getting the government's role right is probably the single most important adjustment that many developing countries, as well as countries in Eastern Europe and the NIS, must make in order to make markets work as the countries shift from command economies or heavily statist economies to market economies. In some of the former command economies, governments must establish an overall legal and regulatory framework which guarantees property rights, the sanctity of contracts, and a functioning court system offering judicial review in the event of property or contract disputes. Probably most important in countries undergoing fundamental shifts in economic orientation, governments have to create stability of expectations with respect to policy and institutional reform and its sustainability. Policy reversals or back-sliding, and foot-dragging on reform implementation will undermine the private sector's perception of political and economic stability and its willingness to invest in new or expanded enterprises.

In providing goods and services of a public good nature, governments should act as supporters, facilitators and regulators of private sector agribusiness development. Investment in new or upgraded infrastructure and adequate infrastructural maintenance are key. Such infrastructure should include not only transport-related infrastructure, such as roads, railways, ports and airports, but also marketplace facilities, large cold stores, improved communications and telecommunications, an expanded electricity grid, water supply, sewage, and waste removal and treatment. Strengthening public agricultural research, extension and market information systems can also play an important role in agribusiness development, particularly in staple commodity subsystems which are not export-oriented.¹⁶ Private firms and their associations will be able to support private research, extension and market information and intelligence that are specific to high-value export commodities.¹⁷

Another important role of government is to set and enforce commodity grades and standards which are developed in collaboration with the private agribusiness trade. Maintaining a high set of standards is absolutely critical for export commodities shipped to foreign markets. Well-understood and effectively enforced grades and standards also facilitate agribusiness oriented to the domestic market, as transaction costs and risks of misrepresentation are lowered. In many developing countries high transactions costs are a serious impediment to the expansion of agribusiness ventures.

¹⁶ See Holtzman, John S., Ismaël Ouédraogo, Thomas Wittenberg, Merle R. Menegay and Kimberly M. Aldridge, *Marketing Information Systems and Services: Lessons from the AMIS Project Experience*, AMIS Project, Abt Associates, Bethesda, Maryland, March 1993.

¹⁷ In addition to setting and enforcing export grades and standards, Kenya's HCDA received and disseminated market information and intelligence from the Market News Service of the International Trade Centre.

Finally, public sector investment in human capital development can be important to training a cadre of agribusiness entrepreneurs, managers and technicians. Such investment should include both upgraded primary and secondary education, as well as post-secondary institutes and university programs focused on production agriculture, marketing strategy formulation and management, financial and economic analysis, international commodity market analysis, international economics and business, and export marketing strategies and procedures. Private firms will be able to provide more specialized training on-the-job once they hire high school and post-secondary school graduates, but they need public schools to train graduates in basic numeracy, literacy, writing and oral presentation skills, and general problem-solving skills.

4. TRADE FINANCE

Establishing a rational policy regime, in general, and for export activities, in particular, is a recognized task. However, for policy reforms to have a significant impact on growth, demand for both export and domestic products must be matched by vigorous supply responses. One critical element that constrains supply response is access to credit. Without financing, export orders cannot be filled nor can the higher internal demand be met. Typically, banks in developing countries extend credit and working capital loans only to large, well-established firms who have sufficient collateral to pledge. The inability to manage the risk implied in serving smaller borrowers, especially indirect exporters (producers of domestic inputs sold to final exporters), prevents full growth and export potential from being realized.

If an outward-oriented strategy is adopted, improving credit access mechanisms is essential and should not be confused with a policy of preferential interest rates. Even with subsidized interest rates, access may not be wide, because the fundamental challenge is finding innovative substitutes for collateral and ways to pool risk. Whereas the risk for extending working capital to collateral-constrained firms selling in the domestic market is substantial, financing international trade transactions can be equally or more risky.

This section focuses wholly on trade finance, the typical mechanisms used, and the steps needed to build a mature financial system that supports an export-led growth strategy. Trade finance is different from other types of banking operations and needs to be given special attention in donor assistance programs. It is transaction-based, self-liquidating in nature, and helps to solve short-term working capital needs. While goods are being shipped and clearing customs, exporters need funds to pay suppliers, and importers need money to pay the exporter and purchase other items to be used in conjunction with the imported goods. Time horizons are relatively short, 30-90 days, and meeting contract delivery dates without slippage is critical. Therefore, interventions aimed at improving access to primary producers may not be appropriate and helpful to traders seeking better access.

4.1 Common Trade Finance Mechanisms

Trade finance mechanisms in much of the developing world are rudimentary or nonexistent. There are four general methods of trade finance: company credit, self-financing, bank credit, and bank loans. Company credit typically applies to transactions between divisions and subsidiaries of a multinational corporation or two companies that have well-established commercial links. Trade transactions are self-financed out of retained earnings. In the case of most developing countries in the early stages of export development, these two methods are likely to be limited. Most trade finance is provided by formal financial institutions either through loans or negotiable instruments of debt. Formal institutions will be the main focus of discussion.

Financial institutions in developing countries do not use many credit instruments, because they lack the skills and capacity to deal with imperfect information on loan applicants, and because they tend to be heavily controlled by government. International trading involves a compounding of risk due to geographic distance, differences in language and standard business practices, and coordination among a larger number of actors. Buyers and sellers employ specific documents and techniques as a means of allocating risk and maintaining control in the transaction. Unlike a simple exchange transaction between two parties in the same country with two elements of risk, an international trade transaction has additional components and more potential sources of contract failure. As seen in Table 4-1, the additional risks can be customs clearance, political strife, foreign exchange availability, foreign exchange fluctuation, and the exporter receiving a lower than expected price. The last risk could be due to either price variability in the terminal, foreign market or to opportunistic behavior on the part of the importer or import broker (particularly those receiving and selling an export shipment on a consignment basis). Other risks related to exporting agricultural products to distant markets are delays in shipment, leading to spoilage and lower returns. Importers or brokers may also delay in sending payment for consignments.

In order to facilitate trade yet reduce the risk, traders and bankers have developed a menu of payment instruments:

- open accounts;
- cash in advance;
- documentary collections (documents against payment and against acceptance);
- letters of credit (unconfirmed and confirmed); and,
- bankers' acceptances.

Each mechanism has different risk and control features. If a seller/exporter has great confidence in the ability of the buyer/importer to pay, the stability of the country, and the foreign exchange availability, the seller can use an **open account** payment method. By using this method, the buyer receives immediate control over the goods through possession of the bill of lading (a shipper's listing of goods and their specifications that in negotiable form can serve as a title of possession) and pays immediately through a bank draft, wire, money order, or personal check. In this case the bank serves only as a transfer agent and the seller/exporter assumes all the risk. This type of transaction is more commonly observed between family members, close-knit ethnic/religious groups, and traders with a long-standing business relationship. It is the least cost way of doing business (Kingman-Brundage and Schulz, 1986).

Table 4-1: Risks in International Trade Transaction

RISK		IMPACT ON SELLER/EXPORTER	IMPACT ON BUYER/IMPORTER
Performance	Seller fails to deliver goods according to specification in sales agreement and on-time.	Damage to reputation.	Could affect ability to perform contracts with own customers.
			Potential financial loss and damage to reputation.
Transaction	Shipper fails to deliver at destination port.	Financial loss for value of goods.	Could affect ability to perform contracts with own customers.
	Goods fail to pass customs inspections.		Potential financial loss and damage to reputation.
Nonpayment	Nonacceptance: Buyer refuses to accept shipment.	Either find another buyer or return ship for sale in domestic market. Possible financial loss. Delay with reshipment could damage goods, particularly agricultural goods.	Damage to reputation.
	Credit Default: Buyer unable to pay.	Financial loss for the value of the goods.	Damage to reputation.
	Political Strife: Civil unrest in importing country prevent or delay payment.	Financial loss for the value of the goods.	Individual firm and country reputation damaged.
	Foreign Exchange Unavailability: The foreign currency that payment is due in may be scarce and/or rationed.	Payment will be delayed possibly requiring financing.	Individual firm and country reputation damaged.
	Foreign Exchange Fluctuation: At payment date, changes in the exchange rate imply losses.	Financial loss if payment is made in a devalued foreign currency.	Financial loss if currency is made in an appreciated foreign currency.
Exporter receives lower than expected price for shipment.	Importer downgrades produce quality says return lower than expected.	May lose money on shipment. May only ship in future if price contractually guaranteed. May hire inspection/grading services of monitoring firm.	Reputation may be harmed by engaging in opportunistic behavior.

If the buyer/importer is in a weak bargaining position due to a bad individual credit history, seller monopoly power, or residency in a very unstable country with nonreputable banks, cash in advance payments may be required by the seller/exporter. Here the buyer/importer assumes all the risk of not receiving the goods purchased on time and according to specification. Again the bank is used only as a transfer agent. For a developing country

trying to penetrate new markets and establish a reputation as a reliable trader, this payment mechanism is not attractive or likely to be used widely.

Away from the two polar extremes of total trust and total suspicion is the middle ground where seller/exporters want to minimize buyer nonpayment risk and at the same time the buyer/importers want to assure quality and timeliness.

Documentary collection against payment without delay (usually three days) permits the seller/exporter to retain possession of the shipped goods until the buyer/seller pays. In this transaction, the exporter ships the goods per the sales agreement with a buyer/importer. The exporter then submits the following to a bank in his or her country (remitting bank):

- a time draft of exchange (a seller's unconditional demand for payment within a specified time frame), drawn on the importer;
- documents (bill of lading, certificates of inspection, and insurance); and,
- a written collection order with precise instructions.

The remitting bank sends the documents, exchange draft, and collection order to a collecting/presenting bank in the importer's country, usually one with a correspondent relationship. The collecting/presenting bank notifies the buyer/importer of the shipment; when payment is received the bank releases the title documents permitting the buyer/importer to take physical possession of the goods.

In the case of **documentary collection against acceptance**, the same general procedures apply except that the buyer/importer can assume possession of the goods after signing the time draft, usually with a payment date 30 to 90 days in the future. Usually at maturity, the collecting/presenting bank debits the account of the buyer/importer who is usually a client of the bank and sends payment to the remitting bank where the seller/exporter usually has an account. Upon transfer the remitting bank subtracts its fees and credits the seller/exporter's account. The disadvantage of this method is that it is chronological and adversely affects the cash flow of the seller/exporter. Medium and small seller/exporters usually have high cash needs. In the case of documentary collection against acceptance, there are nonpayment risks, because the collecting/presenting bank is not liable for failed collection (Kinginan-Brundage and Schulz, 1986).

When the seller wants to minimize buyer credit risk and reduce time lag in payment, the preferred instrument is the letter of credit (L/C). In this case a bank in the importer's country assumes the credit risk of the buyer/applicant by granting a letter of credit or guarantee of payment that is sent to the seller. Upon receiving the letter of credit, the seller reviews and makes sure that it is in accord with the sales agreement signed with the buyer. If it is, the goods are shipped. The seller/exporter then presents the pertinent documents denoting title and certifying quality to the bank issuing the L/C with a draft for payment. The issuing bank

examines the documents and makes sure they conform with the terms and conditions in the L/C. If the documents and letter of credit do not match, the seller has two options: correct the documents; or ask the buyer for a waiver for the discrepancy. If accepted, the bank pays the seller and initiates collection action against the buyer/applicant. When the buyer pays, the bank releases title and the other documents to the buyer, concluding the transaction. If the buyer does not pay, the bank may sell the goods if it has written a clause into the documents allowing it to dispose of the goods. Otherwise, it is an unsecured borrowing.

Besides nonpayment, the bank faces issuance and documentary review risk. If the bank issues a letter of credit incorrectly stipulating the terms and conditions of the buyer or pays against a discrepancy, the buyer/applicant may legitimately refuse to reimburse the bank. In this transaction the bank issuing the letter of credit assumes the commercial credit risk and performs transfer and settlement duties as well. Significant other nonpayment and transaction risks remain, however. The seller risks shipping without being able to conform to the terms in the letter of credit when reviewed by the issuing bank. The buyer risks fraudulent representation on the part of the seller. The seller, with the connivance of authorities and shippers in the exporting country, may falsely describe the goods on the documents or overinvoice.

If the seller is uncomfortable with the political stability of the buyer's country, the reputation of the buyer's bank, and foreign exchange risk, a conforming letter of credit may be used to reduce these other types of nonpayment risk. In this transaction, the seller receives an irrevocable letter of credit that obliges two banks to pay, one in the importer's country and one in his or her country. Instead of the seller/exporter sending the documents to the foreign importer's bank, the papers are presented to a local bank that performs documentary review and then pays the exporter, forwards the documents to the issuing bank, and debits the account of the issuing bank, if they conform. All the other steps remain the same. The added agent, however, increases the fees and the time needed to conclude a transaction.

The last and most sophisticated method of payment is a banker's acceptance (BA) or an unconditional promise by the bank to pay a certain sum of money at a definite date to the bearer. An acceptance can be tied to a time letter of credit or issued independently. The purpose of a BA is to provide either an importer or exporter with immediate funding for a trade or storage transaction involving non-perishables. A bank creates a BA by stamping "accepted" on the face of an exchange draft presented by a customer/trader. The bank discounts the BA according to the going rates acceptance dealers are charging and the relative size of its portfolio of BAs. The rate the bank charges is usually higher than the dealer rate. If the bank's portfolio is large and approaching the limits set by the Central Bank, it may seek to discourage customers by charging a high rate. If the customer agrees to terms negotiated, the bank credits the customer's account by the agreed discount amount and collects a fee. The bank then either funds the advance by selling the instrument in a money market to private investors through a dealer or with its own resources. Investors can resell the instrument as many times as they wish or are able. Upon maturity, usually between 30-180 days, the holder of last recourse settles with the issuing bank, receiving the full face value, after the bank debits the account of the customer who initiated the acceptance. If the transaction is tied to a time letter of credit, a

corresponding bank in the country of the other trade partner is involved and the only significant differences are that the trade documents supporting the transaction have to be scrutinized for conformance to the terms of sale and to rules of eligibility for BAs by both banks. Most importantly, how the discount costs are shared is a function of the relative bargaining strength of the importer and exporter. Usually whoever has the greatest need for immediate cash will bear most of the discount costs. For the seller/exporter, nonpayment risk is reduced to nil and cash flow is enhanced with the combination of a time letter of credit and a banker's acceptance. Other borrower advantages to using acceptances include a generally lower cost compared to conventional loans and expansion of borrowing capacity because the legal limit on outstanding eligible BAs is separate from other loans. From the perspective of the bank, a BA is very attractive because they are funded by investors, thus increasing the bank's lending supply. Also BAs provide better liquidity than loans. Proceeds from eligible acceptances are usually exempt from reserve requirements, thus increasing their profitability. From the perspective of investors, BAs are attractive because they represent a safe (irrevocable obligation by commercial bank to pay), short term, highly liquid investment with a relatively high yield.

Bankers' acceptances and active money markets are critical to a self-sustaining, trade finance system. The main attraction of BAs is that they provide for speedy access and minimize the capital and transaction costs for traders needing pre-shipment financing and exporters dependent on imported inputs. Prevailing BA discount rates are usually lower than the lending interest rate, and traders do not have to hold large cash reserves, which they otherwise would require in order to consummate deals. Because of the lower costs, this type of trade financing generates more goods and services without inflation. The development of BA-based trade financing, however, requires banks with sufficient financial reserves and accurate information about trader clients and overseas markets so that credit risk can be minimized. Without strong lender credibility, money market investors would not be attracted to BAs. In order to develop the necessary acumen, commercial banks have to cultivate and retain highly trained staff, excellent information networks, and earn a solid international reputation. This type of institutional development takes years. Public agencies also have a leadership and facilitating role to play. Developing a loan-based trade financing system would probably be the most feasible first step in moving toward a LC/BA system, as well as the best way to meet the immediate needs of an outward-oriented development strategy.

4.2 Improving Access to Export Loans

In most developing countries where financial markets are underdeveloped and segmented, exporters cannot be assured neutral status in competitive money and financial markets with foreign competitors, especially ones in developed countries. Interest rates are usually above the average international rate, and only large, well-established firms have a high probability of receiving loans. In order to improve the competitive position of medium- and small-scale exporters, the government has to play a lead role in developing a special export financing system as a corrective measure. To fail to provide automatic access to pre-shipment finance to cover

the costs of intermediate inputs, processing, and shipment is to lose potential export earnings.

The guiding principles of an effective export loan system would include the following:

- Automatic access to funds/loans for all exporters and indirect exporters with valid export offers, excluding only those with a record of defaults and credit diversion.
- Full coverage of exporters' pre-shipment finance requirements.
- Finance at competitive market rates and terms.
- Efficient approval and disbursement mechanisms to minimize loan terms and increase loan surety.

In order to achieve these objectives, public agencies, the Central Bank, commercial and development banks, and traders' associations have to work collaboratively. Government has to induce commercial banks to move from collateral-based lending toward a L/C and BA dominated system. In order to do so, the government in conjunction with private trade associations needs to establish and fund pre-shipment export finance guarantee programs. In addition, the Central Bank needs to rediscount export finance loans backed by L/C's, and an export credit insurance system needs to be established for exporters who use documentary collection (drafts against payment, drafts against acceptance). In order to serve indirect exporters, domestic letters of credit can be issued for final exporters with guaranteed purchase orders and used as collateral against formal loans to input suppliers of the final exporter holding the L/C. Often indirect exporters are dependent either on inter-company credit or informal moneylenders. Expanding credit to indirect exporters holds great promise of creating a more vital indigenous entrepreneurial class, modernizing production techniques, and multiplying backward linkages in the economy.

Critical to successful implementation of these principles, however, is the streamlining of administrative procedures in the export finance complex. First, export loans need to be disaggregated into four categories:

- (1) export loans for generated value added (VAL);
- (2) export loans for purchasing domestically produced intermediate inputs (DIL);
- (3) export loans for purchasing imported intermediate inputs (FIL); and
- (4) export loans for sales or inventory purchasing (DOL).

Since the ideal goal is to cover all pre-shipment costs, the ability to verify true needs, prevent credit overextension, and minimize abuse and diversions is important. If the economy is experiencing foreign exchange constraints, such disaggregation is even more strongly advised. The sum of all export production loans (VAL + DIL + FIL) cannot exceed the value of the associated export order. Likewise, a loan authorized for the purchase of domestic outputs (DOL) should not exceed the value of the associated export order. Disaggregation permits the

separation of import financing (FIL) which requires foreign currency from domestic currency loans (DIL, VAL, and DOL).

If foreign exchange is scarce in the country, one way to assure efficient management of existing foreign exchange is to denominate all loans that are tied to the use of foreign exchange reserves in the dominant foreign currency and charge an international interest rate. Export loans for purchasing imported inputs (FIL) must be included in this category. If donor assistance can be mobilized, another improvement would be to establish a foreign exchange revolving fund devoted to financing imported inputs for activities that generate export value added. Hopefully, the fund would be sufficiently large to avoid rationing of credit, since rationing would contradict the basic principle of automaticity.

In addition, the separation of import finance from domestic finance facilitates the development of domestic letters of credit and the use of quasi-collateral. The DIL loan can be backed by the first letter of credit issued on the final export order. All purchased, non-perishable inputs and semi-finished or finished goods can be used as quasi-collateral in the export finance system, further reducing the default exposure of commercial bankers.

Second, automatic and speedy loan disbursement mechanisms have to be developed. Because international trade transactions usually last no more than 90 days, agility in loan processing is critical. In order to provide equal opportunity to all actual and potential exporters, disbursement procedures should minimize personal discretion and be based on clear, technical criteria. Misuse of the system should also be avoided by granting loans at the time need arises. For example, an export loan for value-added production (VAL) should be granted only after the purchase of intermediate inputs has been confirmed. The other three types (DIL, FIL, and DOL) should be granted when a draft drawn under a domestic or import L/C is presented for payment or acceptance. At this point, quasi-collateral is being created from the purchased inputs and finished goods. Promissory notes and loans based on expected export orders can be permitted, but only for established and reputable exporters.

4.2.1 Central Bank Rediscount Line

The government can play an important role in overcoming conservative banking practices by having the central bank rediscount pre-shipment financing. Discounts can be 100 percent for activities deemed to have the highest export potential. The mechanism of approval and disbursement, however, should be expeditious, requiring no more than two days. For the mechanism to work the government has to be fully committed to the outward growth strategy and commercial banks have to trust and follow the lead of the government. Any wavering in the rediscount policy would fuel uncertainty in the private banking sector and frustrate promising but collateral-poor exporters.

4.2.2 Guarantee Funds

Physical collateral is usually demanded by banks on export loans to cover the risks that may arise from an exporter's negligence, default, or failure to comply with the terms and conditions of an export sales contract. Strict demands for physical collateral, even when the central bank may offer very generous discount rates, seem to be the most common barrier to wider loan access, especially for medium- and small-scale exporters.

Government support for loan guarantee programs can address the aversion of commercial banks to expose themselves to the risks of contract non-performance and transaction failure due to customs rejection. In order for a pre-shipment guarantee loan program to succeed, banks have to be strongly committed to the government's export-led development strategy. Furthermore, the government, in conjunction with other actors such as trade associations, has to reduce risks. Government and trade associations can provide technical assistance and training to exporters so that they can better meet international quality standards, know and pass custom inspections and phytosanitary standards in destination countries, and improve operational efficiency. Without steady improvements in the technical, marketing, and managerial abilities of exporters, especially the marginal ones, the guarantee program can become extremely expensive to sustain. Political opposition may arise over funding and commercial banks may lose interest and revert to collateral-based lending. The main objective of the guarantee program is to protect the profit margin of commercial banks by pooling risk.

4.2.3 Domestic Letter of Credit

When an exporter has an irrevocable L/C in his favor, the advising or conforming bank in the exporter's country can open a second, similar credit account on behalf of the exporter, with an indirect exporter (supplier of inputs to the final exporter) as the beneficiary. A domestic L/C is an instrument that declares to the indirect exporter that the bank will pay—on behalf of the final exporter—an exchange draft drawn on it when the indirect exporter submits, together with the exchange draft, a receipt that commodities have been delivered to the final exporter. L/C's can also be opened on documents against payment (DP) or documents against acceptance (DA). Equality in the treatment of payment methods is crucial in making the export finance as open and accessible as possible.

As a result of this creation of "back-to-back credit," the indirect exporter gains access to all export incentives based on the receipt of the domestic L/C. Expectations that final exporters would voluntarily pass through the benefits of an export promotion system to indirect exporters has not been forthcoming in many developing countries (Rhee, 1985). The extensive use of domestic L/C's in the Asian NIC's has shown that granting direct benefits to indirect exporters is more effective and has contributed to a thickening web of backward linkages in the cases of Korea and Taiwan (Rhee, 1985). Domestic L/C's can be two-staged, wherein an indirect exporter can repeat the process with a primary material supplier. For example, an agribusiness exporter of processed tomatoes could open an initial domestic L/C with a fresh

tomato wholesaler/trader, who in turn can open a (second-stage) domestic L/C with a marketing cooperative that desperately needs capital to purchase produce from individual members.

Another benefit of the L/C is that it gives the final exporter the choice to combine inputs in the least cost manner. Indirect exporters or suppliers can be foreigners. If this is the case, the second credit is an import L/C. The exporter would assign the primary credit—the master export L/C—to the bank as collateral and apply for an import L/C. The constraints are the international reputation, prowess, and agility of the bank and the reliability of the shipping industry.

4.2.4 Export Insurance

After some success has been enjoyed in providing exporters with a neutral policy incentive regime and refining the pre-shipment export finance system, the government should devote more resources to expanding exports through payment methods other than letters of credit. Other payment methods such as time L/C, documentary collection, and consignment sales imply greater risk of importer non-payment. These deferred payment methods, at the same time, can be used strategically to expand exports in new markets and/or introduce new products where a reputation for quality and reliability has not yet been established.

Export credit insurance schemes can diminish "buyer" risk, whether it stems from firm insolvencies, bankruptcies, defaults, contract repudiations, or country risks such as strikes, wars, and foreign exchange unavailability. Governments of developing countries have a clear role in attempting to pool risk and protect their importers. With or without the participation of private financial institutions, governments usually fund export credit insurance corporations or export-import banks, insuring 70-90 percent of the value of the export sales contract. The main objective of an export credit insurance system is to create additional export opportunities through the greater use of deferred payment methods, not to substitute exports based on non-L/C methods for exports based on L/Cs. Critical to the success of the insurance program is the rapid development of a reliable information network on the partner countries and importers (Whee, 1990).

In summary, an efficient trade finance system is essential to realize a country's export potential. Without the wherewithal to consummate a sales agreement, a firm loses business, a country loses foreign exchange and does not earn a reputation as a reliable supplier of the commodity in demand, or the country is unable to import needed inputs reducing productivity and welfare. While a complicated subject, trade finance cannot be overlooked in any serious outward-oriented development strategy, nor should it be appended to domestic financial reform initiatives. Because of its transaction basis and self-liquidating nature, trade finance deserves special attention. The guiding principles to consider are guaranteeing equal access to pre-shipment finance for all direct and indirect exporters—both actual and potential—through well-administered guarantee, rediscounting, and domestic letter of credit programs.

5. FIRM-LEVEL INTERVENTIONS FOR IMPROVED AGRIBUSINESS PERFORMANCE

Pursuing a rational macro-level policy regime will benefit most sectors of the economy and bestow immediate benefits on exporters. Such a regime will be characterized by (1) a flexible and realistic exchange rate; (2) free trade status for the import of intermediate products and export of final products; (3) a competitive financial market; (4) competitive primary markets; and (5) transparent regulations and (6) a nondiscriminatory business tax system. Agribusinesses at early stages of development and those more inwardly focused will typically require firm-level assistance.

Specific firm-level needs may include:

- Facilitation of direct investment and joint venture operations, including investor screening, funding of feasibility studies, and business plan preparation.
- Technical assistance to improve choice of production techniques, production efficiency, quality control, packaging, and marketing acumen.
- Labor and management training.
- Access to formal bank loans for investment and working capital needs.
- Access to timely and reliable domestic and export market information.
- Legal assistance in designing appropriate contracts and in seeking remedies or recourse for contractual breaches.
- Dissemination of information on policy, regulatory, tax, and labor law developments.
- Quality control certification programs.

The sources for such micro-level assistance can be varied: government agencies, international donors, trade associations, and non-governmental organizations. Typically, developing countries have relied on public agencies to screen foreign investors, develop information databases, provide technical assistance, and guarantee loans. However, the dispersal of authority over many agencies makes coordination difficult and effective delivery of services problematic (see Wells and Wint, 1991). In the future, private groups, especially trade and industry associations, should be strengthened and encouraged to assume many of the tasks formerly thought to be exclusively the responsibility of the public sector.

Trade associations, for example, can assume technical assistance training, information dissemination, and quality control functions, possibly with initial funding from public and

international sources, but becoming increasingly self-sufficient over time. Effective associations should also help members identify new marketing opportunities and specific buyers or joint venture partners in high-income countries, as well as keep members apprised of changing international quality, grade and phytosanitary standards and regulations. Industry or trade associations are also likely to be more agile in the compilation and dissemination of market information for export commodities than public agencies (Holtzman et al., 1992).

In the final analysis, trade and industry associations need to provide desired and needed services to members, so that member firms will be willing to pay for these services. Willingness to pay can be enhanced by associations that lobby for policy and regulatory reform, special incentives to agribusiness exporters, and a close, collaborative working relationship with key regulatory agencies and financial institutions. In developing countries with weak or non-existent trade associations or a history of very broad-based Chambers of Commerce, governments, with help from donor agencies, may need to provide some seed capital for associations to be created or strengthened. Seed capital and perhaps technical assistance should not become permanent subsidies; associations or industry groups must provide desired services to members in order for members to bear the costs of association staff and activities.

In the absence of viable, self-sustaining industry and trade associations, alternative agribusiness support institutions may be considered which are not commodity, product or industry-based. These include agribusiness support centers, small-business incubators, and agribusiness foundations.¹⁸ The track record on these types of support organizations outside of the industrial countries is thin and uneven. One of the key objectives of A.I.D.'s AMIS II (Agribusiness and Marketing Improvement Strategies Project), slated for five-year implementation beginning October 1, 1993, is to test the economic and institutional viability of

¹⁸ Agribusiness support centers are privately-managed, one-stop centers where prospective agro-entrepreneurs can receive information on government policies and regulations affecting agribusiness trade and investment, international trade data bases, international or domestic industry or trade associations, and possible firm-level contacts for at least key products in major export markets. An agribusiness support center should also be able to help an agro-entrepreneur develop a bankable business plan and assist him/her in securing bank financing. Ideally, agribusiness support centers should charge fees for services rendered or information provided that cover operating costs.

A small-business incubator is a privately-run structure which provides office, storage and working space to entrepreneurs trying to develop new, marketable ideas, goods and services. Incubators were first set up in urban areas of the U.S. facing declining industries and high unemployment.

An agribusiness foundation is typically endowed with significant equity or venture capital. The foundation will take a short to medium term equity position in a new or emerging agribusiness firm which is considered too risky for commercial bank loans. The foundation requires a full-time manager and one or more full-time analysts who can evaluate agribusiness opportunities, risks and potential rewards. Typically, the foundation will have a board of directors drawn from the country's agribusiness community. The Board will approve or disapprove business and investment plans for start-up or expanding agro-entreprises, based on presentations by the entrepreneur/firm and foundation staff.

these support organizations in diverse developing country contexts and in the former communist countries of the NIS and Eastern Europe. For the purposes of this agribusiness policy paper, it is important to note that scarce government and donor resources may be allocated to funding or providing technical and/or management assistance to privately-run agribusiness support organizations. It will be important to track and evaluate the AMIS II experience as an input into broader agribusiness policy formulation.

An institutional strengthening path that is probably best for governments not to follow is the creation of agribusiness promotion organizations along the lines of general trade promotion organizations (TPOs), typically established with donor support, in many developing countries. As Keesing and Singer (1991) have argued cogently for manufactured exports, TPOs do not effectively provide services to manufacturers, because they are government-run, staffed by career civil servants lacking business experience and savvy, and attempt to cover far too many products and services. Hence, they are only able to offer general advice to entrepreneurs on such critical matters as production assistance, potential foreign partners or buyers, and specific market conditions and requirements in specific foreign markets. The shortcomings of TPOs in promoting manufactured exports are likely to apply to developing country agribusiness systems, which are capable of producing a broad range of commodities for export, ranging from bulk commodities to high-value non-traditional exports of fresh and processed commodities.

Other than encouraging and facilitating the emergence of non-governmental agribusiness support organizations, governments can provide some administrative and institutional support for business development. One option is a centralized or "one-stop" structure that attempts to meet the initial, broad needs of nascent businesses and potential investors in one place. For example, investment screening, technical assistance, and market information functions can be assigned to one agency. Such a structure may reduce some of the initial search costs for individual firms, but it is unlikely to offer the industry or commodity specific knowledge, contacts and services required for potential investors willing to take the plunge. Another option which has achieved significant success in some developing countries is one-stop export processing shops, which combine officials from several agencies (customs, trade/commerce and industry ministries). These offices handle all the export and customs paperwork and administration expeditiously at one location, reducing transactions costs for exporters and importers.

As argued throughout this paper, a fully liberalized, incentive-neutral policy regime will create opportunities for agribusiness trade and investment, but it may not always be enough. Structural rigidities and factor market impediments in many developing countries will lead to a second-best set of policies. In other countries, the private sector has been so taxed, harassed and legislated against that it will be weak, suspicious of a liberalized policy regime and very cautious in responding to it. Compensatory tax incentive measures may be necessary to stimulate business activity. These incentives can be applied broadly or narrowly, depending on the objectives of government policymakers and the current budgetary situation. Table 5-1 lists some of the tax measures that can be used to overcome risks and additional costs due to market imperfections.

Table 5-1: Typical Tax Incentives

CATEGORY OF TAX INCENTIVE	EXAMPLES
Profit Based	Low uniform income tax rate
	Income tax deduction for targeted activities
	Income tax reduction
Sales Based	Income tax deduction or sale tax exemption for targeted goods
Value-Added Based	Income tax credit on net local content of export or final domestic product
Specific, Non-capital Expense Based	Income tax reduction for overseas marketing or promotional expenses
	Tax deduction for research and development (related to export commodities)
Investment Based	Accelerated depreciation allowance for export industries
	Investment tax credit

In summary, establishing a sound macroeconomic environment is a necessary but not sufficient condition for stimulating a positive agribusiness supply response. Micro-level and sectoral reforms, such as pricing policies, compensatory tax measures, institutional strengthening, and loan guarantee programs, may also be needed.

6. FUTURE RESEARCH AGENDA

Achieving a vigorous supply response to a policy reform program is the central desire of policymakers. Reform processes tend to be slow, painful, and risky. If rewards are not forthcoming, opposition can mobilize and force retrenchments and even abandonment of the program. Because the agricultural sector and the agribusiness system represent significant portions of employment and value added in many developing economies, the desire to see growth and improvements can be even more acute. Therefore, a better understanding of how entrepreneurs and investors do business and make decisions in light of many market failures is critical to the design of more effective assistance programs.

The following subjects are relatively understudied and could benefit from further applied research:

- Organizational design, intra-organizational incentive systems, and intra-organizational behavior;
- Labor markets and human capital requirements for successful agribusiness development;
- Financial markets and agribusiness credit;
- Market information and intelligence;
- Selection among direct investment, joint venture, licensing, and franchising alternatives; and,
- Environmental impacts of agribusiness operations.

6.1 Organizational Design and Behavior

Effective organizations and public support structures seem to set rapidly growing developing countries off from others facing the same external obstacles and market failures (Hoff and Stiglitz, 1990; Leibenstein, 1989). Economists have too longed focused on commodity price/quantity relationships and not on institutions, rules, and behavioral norms. Making diagnoses of technical and economic problems is relatively easy, but implementing the appropriate change and galvanizing broad segments of a society to work toward a common goal has many times appeared to be a mystery. Greater effort and more resources should be devoted to at least understanding how public bureaucracies work and how they can be effectively reformed in order to better deliver public services. Many new developments in organizational and game theory can be used to illuminate some of the failures in extension and export promotion agencies. Furthermore, reward and incentive structures and personnel policies need

to be reviewed and changed. How cultural norms, values, and attitudes affect institutional and contract design is also important to fathom.

The economic success stories of the Asian NICs are in part due to highly efficient public administration and harmonious relationships among government, industry and labor. Many developing country leaders know what should be done. They are stymied, however, not so much by lack of resources but by obstructionist bureaucracies, inappropriate incentive systems within public agencies, and hostile attitudes toward the private sector. Creating a new social vision and developing the appropriate institutions are as important and necessary for agribusiness development as a realistic exchange rate.

A.I.D. has incorporated agribusiness support centers and agribusiness trade promotion agencies in the design of many of its agribusiness projects and programs. When agencies to promote manufactured exports reside solely in the public sector and are staffed by government officials, their performance has been generally poor (see Keesing and Singer, 1991). A.I.D. needs to pay careful attention to these lessons and monitor and evaluate closely the performance of any government or quasi-government agencies to promote agribusiness trade and investment. A Nathan/Berger study (1990) of export promotion found that generalized promotional programs supplying information to local businessmen on foreign markets, and production cost data to foreign investors, were highly valued by clients in countries with favorable policy environments. More targeted approaches to export promotion, which provide services intensively to selected individual enterprises, may be better suited to countries where the policy environment is unresponsive to agribusiness development and trade promotion. Under a CDIE-led evaluation, A.I.D. is currently evaluating the effectiveness of alternative agribusiness promotion approaches used in a dozen, completed A.I.D. projects and programs worldwide (see CDIE, 1993). This evaluation, which will produce a synthesis document in mid-1994, should be complemented by monitoring of ongoing A.I.D. projects and programs, which represent a substantial proportion of the Agency's portfolio in the first half of the 1990s.

6.2 Labor Markets and Human Capital Requirements for Agribusiness Development

Labor markets in developing countries tend to be segmented. Due to statutory regulations, relatively strong urban labor unions, inadequate educational systems, and imperfect information, labor scarcities may persist in a particular region or skill category. Training and certification programs, especially apprenticeships, may be necessary to increase the supply of needed skilled workers, bolstered later on by educational and labor law reform. In order to keep wage increases in line with productivity gains, an examination of the appropriate ways government should intervene in the wage determination process may be an area of policy interest. In the context of agricultural and agribusiness development, other areas of policy interest may be to examine the conditions under which contract farming is auspicious and to

design manpower training program based on the range of typically demanded skills in agro-processing industries.¹⁹

As the international marketplace becomes increasingly integrated and competitive, the educational systems of many developing countries will require significant reforms. In many countries teaching is a poorly paid and not highly regarded profession, and it ends up attracting people who are unable to enter fields such as public administration, engineering, management and finance. The primary and secondary school systems of many developing countries also emphasize rote learning and fail to develop the problem-solving skills required in an increasingly complex world. Graduates of primary and secondary school systems need basic literacy and numeracy and the analytical skills to solve problems in a systematic way. Post-secondary school training in many developing countries does not include effective training in the skills required to run agribusiness firms, trade associations or public (or quasi-public) agencies which support agribusiness development. Graduates of post-secondary certificate or degree programs need skills in production and marketing management, market research and analysis (for both domestic and international markets), accounting and financial analysis, and assessing and adapting foreign technology to local needs. The educational systems of developing countries need to produce more business-oriented graduates who are open and alert to new ideas, technologies and market opportunities. As these countries expand agribusiness trade and investment, agribusiness entrepreneurs and analysts will need to know quite a bit about the international political and economic system, and a lot about the social, cultural, political and economic characteristics of key trading partners. Without this international savvy, countries will be doomed to backwater status. The necessary international orientation and business skills can be fostered in part through a more effective educational system. Government may need to invest more heavily in specialized agribusiness, general business or agricultural economics degree programs in developing countries where post-secondary education has focused on the humanities and sciences.

6.3 Financial Markets and Agribusiness Credit

Improving access to loans is the cardinal need in financial markets, plagued by imperfect information and underdeveloped instruments and money markets. Finding substitutes for collateral is the main obstacle. Other mechanisms such as guarantee loan programs, revolving credit funds, liens, and domestic letters of credit will have to be employed along with risk-reduction strategies. The public sector can make the appropriate investments in research, extension, managerial training, and physical infrastructure that will improve the latent credit-worthiness of clients. The immediate research agenda should focus on exploring under what conditions alternative loan contract mechanisms are efficacious.

¹⁹ Note that the Africa Bureau funded a multi-country study of contract farming in the mid-late 1980s. This produced a number of excellent monographs (see Jaffee, 1988; Horton, 1987; Minot, 1986). This study will need to be updated as the Agency accumulates more agribusiness experience.

As part of a study of rural and agricultural financial markets funded by the ARTS/FARA Office of the Africa Bureau, Ohio State University is examining agribusiness finance issues (see Meyer et al., 1992). OSU notes that most governments and donors have "pursued a supply-lending approach to finance which emphasized increasing the supply and reducing the cost of loans to specific sectors (p.vi)." The approach ignored savings mobilization, made lenders dependent upon cheap government and donor funds, and created rent-seeking opportunities for politically influential borrowers. Private agribusiness firms have rarely been used as financial intermediaries for formal credit, but they may be able to serve effectively in this capacity.

An important set of issues and questions can and should be examined in considering agribusiness firms as on-lenders of formal credit to farmers, product assemblers, and input distributors. Assuming agribusiness firms provide informal loans to collaborating producers and enterprises, what mechanisms could be designed to reduce risks and maximize the probability of repayment? What would substitute for collateral in these loans? Probably character-based and performance-based lending would suffice; agribusiness firms would on-lend to farms and firms deemed reliable, solvent and sound credit risks. Agribusiness firms would loan to firms with whom they have proven and trusted working relationships. This could be a barrier to entry, however, with possible negative regional, ethnic or gender impacts. Agribusiness firms should be canvassed regarding their interest in providing on-lending services. What types of financial incentives would be offered? How would the performance of both lenders and recipients be evaluated? What types of administrative, technical and financial support would be required to assist agribusiness firms willing to on-lend? OSU proposes more analysis of current sources and uses of agribusiness finance, as well as surveys of how these formal sector firms "would respond to opportunities for retailing loans to their clients (p.xvi)."

6.4 Market Information and Intelligence

Besides the obvious need to address infrastructural shortcomings so as to reduce transaction costs, further research and analysis is needed in three areas. First, how can one increase the bargaining power of small producers vis-a-vis wholesale traders and processors, who sometimes enjoy oligopsonistic power in agricultural markets. Second, how does one improve domestic market information flows among producers, first-handlers, wholesale traders, processors, retailers (from independent sellers to retail chains) and other food system participants? Third, how do agribusiness entrepreneurs identify market opportunities in other countries and keep abreast of changing market conditions and developments in foreign markets?

Unless checked with countervailing power, oligopsonistic agricultural traders and processors are not likely to pass through the full benefits of higher prices to small, unorganized producer/suppliers. Policymakers concerned with improving income distribution may consider promoting marketing cooperatives and producer associations that can act as intermediaries or gather and disseminate market information to individual producers. Other ways of providing timely and reliable market information to small farmers (via radio broadcasts, extension programs), that can improve their bargaining position by making them aware of market

conditions and alternative sales points, also need to be explored and assessed rigorously. Simply reporting prices of key commodities through radio broadcasts may not be enough to help small farmers; some marketing extension is often required to help producers interpret price information (often reported only for a handful of large wholesale markets) and to make better planting, storage and sales decisions.

Gathering, processing, and rapidly disseminating market information are critical in promoting inter-regional arbitrage and attracting new entrants to profitable activities. It would be informative to explore which alternative institutional and funding arrangements (wholly public sector activity, partially public and partially private, or wholly private sector) have been most effective in information dissemination and why. Furthermore, it is critical to identify and assess what are the critical information needs of agribusiness firms and exporters in developing countries, as well as countries undergoing profound political-economic reform (such as countries in Eastern Europe and the NIS). Finally, examining different dissemination vehicles and formats would be useful in assessing the most effective information dissemination strategies and tools.

Identifying foreign market opportunities requires more than information on commodity prices in foreign terminal markets. Analysis of the strength and characteristics of alternative supply sources is also necessary. Agribusiness exporters must have some notion of who the competition is, the attributes of their products (including packaging and labeling) and how these are perceived in foreign markets, promotional efforts used by competitors, trends in competitors' export volumes, prices and market shares, and the range and requirements of specific importers or buyers. This understanding can only be achieved through effective marketing intelligence, which goes well beyond simple price reporting. Although all agribusiness firms have private sources of marketing information and intelligence in foreign markets, these sources are incomplete and imperfect and need to be supplemented by additional, impartial sources, which can be either public or private. Agribusiness policy analysts need to evaluate the accuracy, benefits and costs of alternative information sources, including industry and trade associations in developing countries, public agencies or international organizations (such as the Market News Service of the International Trade Centre). Analysts can also assess the willingness and ability of end users (i.e. agribusiness firms or associations) to pay for improved, up-to-date and impartial information sources.

Adapting modern information collection, processing, presentation and dissemination technologies to specific countries and agribusiness clients is crucial to the success of any agribusiness development program. Successful case studies and full economic costing of market information systems can serve as an enticement and be instructive to other governments or to trade associations in developing countries (or former communist countries) in the early stages of agribusiness or export development.

6.5 Selection Among Direct Investment, Joint Venture, Licensing, and Franchising Alternatives

Attracting foreign capital and gaining access to advanced technology and marketing techniques in the early stages of an outward-oriented growth strategy are universally recognized to be important factors in later success. Examining what factors determine direct foreign investment flows into specific agro-industries or agribusinesses, as opposed to joint ventures, licensing, and franchising, can be instructive in guiding governments with scarce resources and peculiar characteristics. Regression analysis and game theory can help to explain why certain patterns develop. Key issues to examine include, but are not limited to, the following:

- What are the advantages and disadvantages for domestic producers, investors, processors, exporters, franchisees or licensees of alternative investment arrangements?
- What are effects of alternative arrangements on government revenues?
- Which alternative investment arrangements generate the most domestic employment and value added?
- Which alternative investment arrangements have the highest domestic multipliers and the strongest domestic backward or forward linkages?

Based on such an analysis, developing countries could design and implement policies and programs that support particular types of investment flows, suited to their endowments, institutional idiosyncracies, economic needs, and agribusiness development objectives.

6.6 Environmental Impact of Agribusiness Operations

With the rise in environmental and food safety consciousness, particularly in the high-income markets of industrial countries, developing countries can no longer ignore pollution externalities associated with agribusiness production processes. It is likely that traded products destined for developed country markets will become increasingly subject to scrutiny for environmental benignness and adherence to recognized fair labor standards. Commodities produced by unduly "dirty processes" or under prison labor conditions may be excluded or subject to high tariffs. At present, low-income countries seem to place a greater premium on short-term growth than on longer term sustainability and quality of life, but growing environmental constituencies and loan conditionalities are likely to force changes. The economic implications of adopting clean, more expensive state-of-the-art production technologies versus those which are older, cheaper, and dirtier need to be addressed forthrightly. Monitoring whether polluting agribusinesses which are foreign-owned will tend to migrate more quickly to nations with fewer or unenforceable regulations will be important.

7. CONCLUSIONS

In closing, **agribusiness promotion**, as in any other sectoral promotion program, **needs a sound macroeconomic policy environment as a precondition for success**. The incentive structure has to be favorable. If export development is sought, commodity production should be based on notions of comparative advantage as opposed to the restrictive condition that foreign exchange be generated at any cost. If the export campaign is to be sustained, the export commodities must be internationally competitive. Several analytic techniques exist for determining relative efficiency and measuring the degree of bias in the incentive structure (domestic resource costs, protection coefficients, subsidy equivalents, net economic benefit, relative real effective exchange rates). These measures can be used to determine where distortions exist. If the distortions cannot be easily removed, then the measures point to where compensatory incentives should be targeted.

To implement effective programs of agribusiness promotion, **numerous actors, public and private, need to coordinate activities in a structured and coherent manner**. Public good theory and the presence of externalities can be used as a rough guide to determine where the public sector should intervene or take a leadership position. In developing economies, the pervasive market failures, uneven infrastructural development, and imperfect information create a significant domain for action. However, the essential role for government should be the provision of minimal yet necessary infrastructure, formulation and implementation of stable, rational and internally consistent sets of economic policies, and alleviation of financial market failures through guarantee programs and rediscounts. The private sector should specialize in production and marketing activities.

Governments should attempt to create a positive enabling environment by ensuring (1) a flexible and realistic exchange rate; (2) a liberal and open trade regime; (3) a competitive financial market; (4) competitive primary input markets; (5) a non-discriminatory domestic tax system; and (6) a transparent regulatory regime. Because many developing countries may not have competitive markets, transitional or second-best policies may have to be pursued in the medium term. The ability to implement the differential and compensatory second-best policies, however, is closely associated with the quality of leadership and the stage of institutional development.

One critical component in any form of export promotion is **trade finance**, which is significantly different from the need for working capital loans. Because financial and money markets in developing countries tend to be uncompetitive and underdeveloped, governments may need to spearhead a special export finance system. The basic aims would be to guarantee access to credit for all direct and indirect exporters and to induce commercial banks to assume more risk and learn how to internalize and manage it. The preferred instruments of trade finance used to reduce the risk of importer non-payment are letters of credit and bankers' acceptances. Letters of credit can be stacked back to back (on both the export and input procurement sides) in order to permit indirect exporters' access to credit. This innovation is key in strengthening

and multiplying backward linkages in an economy. Bankers' acceptances require an active money market. If these markets exist, BAs serve to expand the lending capacity of a bank, since the excess liquidity of private investors is used to finance trade transactions. Immediate second-best actions, nonetheless, would include establishing guarantee and insurance programs for collateral-constrained, medium- and small-scale producers.

Besides macro-level interventions, firm-level support is likely to be needed in the areas of production, quality control, marketing, management, assessment of market opportunities and formulation of business plans, and finance. A variety of public and private agents can and should provide the requisite assistance, but the fundamental challenge is how to effectively coordinate actions so as not to duplicate and waste resources but at the same time reach the widest population. By fostering and providing initial financial and technical assistance to private trade and industry associations, governments (with help from donors) can help to create the capacity within the private sector to provide firm-level support.

Lastly, six areas were identified where further analysis and research are needed in order to help design better assistance programs. They include (1) organizational design and incentives for improved organizational performance; (2) labor market imperfections and human capital requirements for agribusiness development; (3) financial market imperfections; (4) commodity marketing information and intelligence; (5) advantages and disadvantages of direct investment, joint venture, licensing, and franchising alternatives; and (6) environmental impacts of agribusiness activities. Critical ingredients of successful agribusiness promotion campaigns are enlightened political leadership, public and private institutions with well-defined mandates and staff motivated by transparent incentives, skilled labor and management, well-functioning financial markets (often supplemented by special instruments of trade finance), and timely, reliable market information and intelligence.

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