The Effects of the Real Exchange Rate, Sectoral Policies and Price Transmission on Exports: An Analysis of Banana, Coffee and Cocoa Exports from Ecuador

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During the 1980's the Ecuadorean economy was marked by a restructuring process dominated by periodic exchange rate devaluations and successive reductions in trade barriers, particularly export taxes. During this structural adjustment period, monetary authorities experimented with mini- and macro-devaluations implemented in conjunction with an assortment of exchange rate systems that included fixed, multiple and floating exchange rate systems none of which were mutually exclusive but rather complementary. Adding complexity to the management of the foreign exchange income, and uncertainty to the decision-making process of exporters, the government enacted a series of measures aimed at discriminating between export products and transactions. This was done through rather concatenated but carefully drafted export proceed surrender mechanisms -- export businesses have had to surrender all or part of their export proceeds to the Central Bank at pre-determined (and most of the time over-value) exchange rate. Given the central role played by traditional export industries in Ecuador's economy, these policies have had important consequences for these industries in particular and Ecuador's economy in general.

This study of principal traditional exports from Ecuador: bananas, coffee and cocoa for the years 1978-1989 is divided in two sections. First, it incorporates exchange rate systems and restrictions, together with the net effect of taxes and subsidies, in an export supply framework. A distributed lag model for each commodity, with current and lagged world prices, effective export exchange rates, labor costs and seasonal effects, is estimated using OLS. The parameters obtained from these functions demonstrate the responsiveness of each export sector to real currency devaluations, world price changes and changes in factor costs.

Second, in addition to the export supply estimations, this study focuses also on price, exchange rate transmission and market integration between the international and domestic markets, and border and farmer markets of bananas, coffee, and cocoa. Price linkage equations for each commodity market were estimated, and price and exchange rate transmission elasticities were derived, to help evaluate the nature and magnitude of changes in exchange rate and price transmission to producers.

The results obtained indicate that the value and volume of exports of bananas, coffee and cocoa have responded positively to changes in exchange rates and prices. However, this responsiveness has varied in magnitude and timing across commodity markets. The net effect of taxes and subsidies has been, at best, detrimental to the export expansion induced by the policy of exchange rate devaluation.

Regarding market integration and price transmission, the analysis revealed several results: First, international and border markets of coffee and cocoa have been closely linked. Second, border and farm markets of cacao have been much closer connected than those of coffee and bananas. And third, changes in exchange rates have been transmitted in greater proportions from the border level to the farm gate in cocoa and bananas more than in coffee.

The differences in market integration, price and exchange rate transmission across commodity markets are a reflection of the official pricing mechanisms used and the various levels of success obtained through the lobbying of producers and exporters. The imperfect market characteristics at the border level, particularly in the coffee sector, could also be an important factor influencing pricing behavior at the farm gate.

Contingent Valuation Methodology and the Bounded Rationality Perspective

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Contingent Valuation Methodology (CVM) is increasingly used to value many kinds of public goods. Often CVM analyses implicitly assume that humans have great cognitive ability and that, when asked, people will consistently reveal their preferences. In contrast, others posit that humans only possess bounded rationality, which generally precludes them from optimizing when faced with complex or unfamiliar decisions. To support their position they point to the many psychological studies that find respondents reverse preferences when confronted with arguably innocuous modifications in context to choices.

The manner in which respondents make their decisions in CVM surveys, and the extent to which the neoclassical or bound rationality frameworks describe their decision behavior, can have important implications for CVM use. For example, neoclassical theory assumes that individuals have well defined and exogenously determined preferences. However, if preferences are constructed as part of the survey process, then minor changes in context can potentially lead to large changes in responses. Thus, if the neoclassical framework is more appropriate CVM practitioners need not be as concerned with question context than if the bounded rationality framework is more appropriate.

This thesis focuses on two hypotheses that are consistent with the bounded rationality framework. First, many CVM questions may elicit feelings of ambivalence in respondents. If respondents are ambivalent they may not answer questions in a manner consistent with the neoclassical framework. Ambivalence may occur when respondents are asked to make tradeoffs between their ethical values and their personal preferences. In this study, if ambivalence occurs, it is assumed to occur when questions posit choices where individuals must choose between paying higher costs and accepting greater environmental degradation.

This thesis also explores whether dichotomous choices elicit dimensional rather than holistic decision-making. While dimensional decision-making is not strictly inconsistent with the neoclassical framework, its wide use in a CVM format could greatly lessen the ability to extrapolate results from surveys to suppositions of respondents' general preferences.

Analyses included comparisons of maximum likelihood results of a number of functional forms implied by different assumptions of respondents' decision-making processes. Results were re-analyzed after efforts were made to screen out respondents that may not have understood the survey. Sensitivity analyses were performed to ascertain whether different functional forms could lead to significantly different predictions of respondents' preferences. Finally, an analysis was performed to try to assess the cause of nonresponses.

Results appear to show that many respondents do use dimensional instead of holistic decision-making. The results also appear to show that respondents answer questions differently when they are confronted with questions that may elicit ambivalence. These results imply that CVM analysis may not be robust, and that CVM practitioners must be wary of unintended contextual effect on responses.

Agricultural Trade Liberalization in China: A Computable General Equilibrium Analysis

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The agricultural reforms instituted in China since 1979, have brought significant changes in the economic development of the Chinese economy. China currently has 22 percent of the world population with more than 60 percent of its labor force devoted to agriculture. China's agriculture is characterized by very small scale farming and limited regional specialization or interregional trade. The potential for China's economic structure to change in the future is large and the impact on its economy and international agricultural trade would be significant.

The objective of this study is to analyze the intersectoral effects of agricultural policy reform on the Chinese economy using a computable general equilibrium (CGE) approach. Specifically, this study analyzes the impacts of agricultural reforms on relative prices, outputs, trade flows and factor uses and returns.

A CGE model is constructed to analyze the effects of agricultural policy changes on the Chinese economy. A CGE model simulates the working of an economy in which prices and quantities adjust to clear markets for factors and products. A 1987 Social Accounting Matrix (SAM) based on the new Input-Output accounts serves as a data base for the model. The SAM has eight producing sectors, four of which are agriculturally related. The other four sectors are the aquaculture, primary resources, industrial and services sectors. Each sector produces goods by combining primary inputs: labor and capital, with intermediate inputs using a nested production function.

Agricultural trade liberalization is studied through the use of Producer and Consumer Subsidy Equivalents (PSEs and CSEs) at the border and on urban consumption, as measures of income transfers from market distortions through government programs. The PSEs and CSEs are relaxed to simulate trade liberalization in eight policy scenarios. Each of the policy scenarios uses one specific macro adjustment policy: either the exchange rate fluctuates to bring the economy to a general equilibrium, or the level of foreign borrowing acts as the adjustment variable. Removal of the market distortions measured by the PSEs and CSEs, leads to significant effects on agricultural production for the export and the domestic markets, as exports increase in the grain, crop and livestock sectors.

The overall implications are towards economywide inflation due to trade liberalization, as the GDP deflator in the model induces a fall in prices in some sectors to offset the increase in prices in the grain, crop and livestock sectors. There are also significant increases in rural labor incomes, due to increased demand for rural labor usage and increased exports and production in the agricultural sectors. However, reform of border policies through trade liberalization will also require coordination with macro adjustment policies, due to their impact on the aggregate trade balance, exchange rate, and general price level.

An Evaluation of Campers' Preferences Using Conjoint Analysis

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Due to recent budget cutbacks, Maine state park officials are having a difficult time meeting the needs of all users of publicly provided recreation facilities adequately. Smaller recreation budgets have forced some areas to reduce maintenance, cut back services and raise user fees at many facilities. In addition, recent referendums that would provide funding for new facilities at the state's recreation facilities have been rejected. However, providing a high quality recreation experience is still a goal of most public as well as private resource managers despite the decrease in fiscal support. Managers forced to "tighten" their operations need to know what users' preferences are for recreational amenities so facilities can be run efficiently, while at the same time meeting the needs of the recreating public. To be successful, decision makers need timely and accurate information regarding users' preferences.

The overall goal of this thesis is to investigate the preferences of users of Maine state park campgrounds and the importance of different attributes in their camping decisions. In cooperation of the Maine Bureau of Parks and Recreation, a mail survey was administered to 1005 Maine state campers in 1991. To ascertain the relative importance of campground characteristics, 400 of these respondents were presented a chart comprised of four hypothetical campgrounds. Each campground contained varying levels of five attributes; campsite fee, travel time, hot showers, flush toilets, bike path and self-guided nature program. The respondent was asked to rate each campground on a scale of 1 to 10. Conjoint analysis is the method used to measure users' tradeoffs among various campground attributes and the importance of each attribute to the user. OLS and Tobit analysis statistical producers are used to interpret and analyze the value for each attribute that indicates the relative importance of that attribute of the respondents. By summing the values for various combinations of attributes levels, one can find total worth or value of the campground to a user.

This knowledge will help recreation managers to make efficient pricing decisions, capital improvement decisions, or reductions in services during fiscally austere times. This information is especially useful for designing new campgrounds when funds are once again available. This study surveyed both residents and nonresidents of Maine; therefore, the results may be applicable to other states where similar fiscal restraints exist in the allocation of public recreational resources.

Leading Firm Heterogeneity as a Determinant of Advertising Intensity in Food and Tobacco Manufacturing

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Previous advertising intensity models have failed to address adequately the rivalry effects of leading firms trying to protect and enhance the market shares of their brands. A central characteristic of the literature is a reliance, explicit or implicit, on inherently weak concentration ratios and Herfindahl-Hirschman Indices to represent actual competitive conditions (market structure). This study presents a model that remedies this shortcoming and then tests it using a 1987 industry-level data set of U.S. food and tobacco manufacturing product classes. The primary modification is the augmenting of the traditional four firms' market shares, to represent market structure. This additional information distinguishes markets with identically positioned leading firms from those dominated by a single firm, thus allowing for leading firm rivalry.

Empirical results suggest this hypothesis is correct.

Coefficients for the variance term and several related alternatives were consistently negative and significant at conventional levels in an array of regressions, indicating that the relative degree of market dominance negatively influences industry advertising intensity. The concentration ratio was found to have a significant, quadratic relationship with advertising intensity, although, unlike nearly all previous research, it had an upward bending shape. The remaining variables were in general accordance with previous results. There was strong support for the positive influence of the price-cost margin and weak support for a trio of control variables; market size, market growth, and percent sold to final consumers. In addition, causality tests suggested that a single-equation model was appropriate despite uncertainty in the literature as to the exogeneity of advertising, concentration, and price-cost margins.