Economic Analysis

Food Aid and Food Availability

The first regression model considers how food availability is affected by cereal food aid imports, while controlling for international prices, domestic prices, undernourishment, and government effectiveness. The results show that food aid is curiously associated with an increase in food availability and domestic prices, contrary to the original hypothesis. In particular, a 1 metric ton increase of food aid per 1,000 people is associated with a 0.0005 metric ton food availability increase per person (or a 0.5 kg increase per capita). Additionally, a one-unit increase in the international price index is associated with an improvement in food availability by 0.1 kg/person and a one-percentile increase in government effectiveness is associated with a 1 kg/person increase in food availability as outlined by the model. These results should then suggest a slight positive impact of food aid on domestic prices and production of cereal foods.

Food Aid and Food Utilization

The second regression model considers how food utilization is affected by cereal food aid imports, while controlling for international prices, domestic prices, undernourishment, and government effectiveness. Again, we find that food aid seemingly has a weak positive impact on another determinant of food security: nutritional adequacy as defined by diet diversification. The results suggest that a one metric-ton increase of food aid per 1,000 people is associated with an improvement in the percentage of non-starchy foods in a population's diet by 0.3%. However, one-percentage increase of undernourished people in the total population is associated with a decrease in the percentage of non-starchy foods by .17% - a result which was originally assumed. Overall, we find the results of this model are too ambiguous to confirm or reject the original hypothesis in terms of how food aid affects food utilization.

Political Analysis

The results of this economic study proved to be ambiguous, suggesting that there is a more complex relationship between food aid and food security than what is accounted for in the regression models. Therefore, more accurate conclusions about how food aid affects food security can only be drawn when these quantitative results are considered in the light of qualitative analysis. Investigating the political dimension of this relationship through analysis of various food policy interventions, the mechanics and donor politics of food aid, and the role recipient states play in creating food security may help better explain the underlying behavior of food aid as it relates to food security.

Acknowledgements & References

A special thanks goes to faculty advisor Dr. Ed Montanaro, the economics faculty, and Dr. Art Cyr.

2. Ibid.