The welfare consequence of increases in food prices in rural Mexico and Colombia*

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Abstract

This paper presents an analysis of the welfare consequences of recent increases in food prices in Mexico and Colombia. We estimate a QUAIDS model of demand for food, using data collected to evaluate the conditional cash transfer programmes in these two countries. We show how the poor have been affected by the recent increases and changes in relative prices of foods. We also show how a conditional cash transfer programme provides a means of alleviating the problem of increasing staple prices, by indexing the grant the household receives with a 'true' price index that reflects the impotance of staples in these households expenditure. We contrast this policy with alternative measures, such as price subsidies.

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1 Introduction

The recent increases in food prices in Latin America and other parts of the developing world have raised considerable concerns about the welfare of poor households for whom food represents a substantial share of consumption and who might be already at levels of consumption close to subsistence. The implications that deterioration in nutrition and food security might have even in the long run make this problem very pressing and the consideration of appropriate policy responses urgent.

Quantifying the impact of the increases observed in recent months and years on the welfare is not easy for a variety of reasons. First, some households might be net producers of some of the items whose price increases. Therefore, for some poor households some price increases might result in an increase in welfare. Second, as prices of different commodities might move in possibly very different ways, one needs to assess the substitution possibilities to assess the decrease in welfare. Finally, in addition to the possible decrease in welfare, it is also important to establish what are the effects of the observed price increases on the pattern of consumption and expenditure. While in this paper we will not say much about the first of these issues, we will deal explicitly with the other two. That is, we will not be modeling supply responses on the production of certain commodities as a consequence of price changes on the part of some of the households in our data sets. We can control for the income effects that price changes can have, but we do not consider substitution possibilities on the supply side. We only model substitutions on the demand side, as was done by Ravallion and van de Walle (1991) to analyze the effect of rice prices changes in Indonesia: our model is more detailed than theirs, but the idea behind the welfare analysis very similar. [1]

[1] As for the supply side, in the future we plan to consider only the effect that a change in price has on a producer's income. This exercise can be considered as a first order

Many policy interventions in reaction to a change in agricultural prices can be considered, ranging from price controls and subsidies to specific commodities, to cash and in kind transfers. From an efficiency point of view, interventions that do not try to affect prices are probably to be preferred for a variety of reasons. However, direct transfers might be difficult to design and to target. It is therefore natural to look at existing programmes to see if they can be adjusted to the specific need for intervention induced by the increases in food prices. The presence of conditional cash transfer programmes gives policy makers in some developing and middle income countries an important opportunity in this context. The CCTs might turn out to provide the basis to articulate and develop an appropriate response.

There is another sense in which CCTs can be important. Many of these programmes have been evaluated rigorously and for that purpose, survey data have been collected that include detailed data on expenditure and consumption patterns and, in some cases, unit values and prices. These surveys that over the years have been collected to evaluate the impact of CCT provide an invaluable source to estimate the impact of food prices for poor households. In particular, one can use them to estimate detailed and theory consistent demand systems that can then be used to estimate 'true' price indexes. These price indexes can then be used to evaluate in a rigorous fashion the consequences of food price increases. The estimation and use of these price indexes is the purpose of this study. Having estimated the true price indexes, our study is able to assess the effect of specific increases in prices, but also the effect of the change in relative prices. Moreover, we consider not only the average effect of these price changes, but also their distributional consequences.

It should be stressed that the surveys designed to evaluate CCTs are particularly useful in this context. First, they mostly cover the population that is eligible for these programmes or geographic areas that have been targeted

approximation of the type considered by Deaton (1989) and Ravallion and Lokshin (2004).

by these programmes. This means that these surveys cover mainly the poor and vulnerable households that are the main target of possible interventions. In this respect, they have a big advantage over nationally representative surveys that might be used for the same purpose. Second, these surveys often contain very detailed information on expenditure and consumption patterns and on local prices. The former information can be profitably used to detect substitution possibilities, the latter allows one to check, to the extent to which the period covered by the survey is the relevant one, the degree to which international or national prices increases are reflected in local prices.

In this paper, we study two different countries in Latin America that have developed over the last 10 years very large CCTs: Mexico and Colombia. In both cases, we focus on the rural component of the programme. Our choice is mainly dictated by the availability of large household surveys containing detailed information on consumption patterns that were collected to evaluate the impact of these programmes.

Several elements make rural Mexico a very interesting case. Rural Mexico is the place where the first and best known Conditional Cash Transfer programme, PROGRESA, now known as *Oportunidades* was started in the late 1990s. The expansion of the programme was accompanied by a large evaluation effort that included the collection of extensive household surveys in 506 localities. Several waves of this survey were gathered: in this paper we use six surveys collected between October 1998 and October 2007 in these localities.[2]

In parallel to the introduction of the large scale welfare program, food prices in Mexico have increased in recent years. The most spectacular increase is the price of tortilla, up by 50% in some areas, or more than 10 times the increase in the minimum wage.

The case of Colombia is slightly different. The CCT programme, *Famil-*

[2]We do not use the urban data because it lacks information on prices and unit values and because it refects a different reality from what we study here.

ias en Acción was started in 2002 and the data we will be using cover a shorter period: we will be using a survey collected in 2003 and one in 2006. Unlike the Mexican case, therefore, the survey stops before the recent large increases in prices. However, as we will see, there is enough variability to estimate the demand system we will use for our welfare analysis and our policy experiments. The Colombian evaluation sample we will be using is made of 122 relatively small towns. Roughly one third of the households live in the urban centre of these towns, while the remaining two thirds live in rural environments. Therefore, at least part of the Colombian sample is slightly more urbanized than the Mexican one.

The exercise we propose, the estimation of a demand system to construct 'true price' indexes for the population of interest and assess the welfare losses implied by observed food price increases, is conceptually straightforward. Implementing such an exercise, however, is not trivial. We have to address many methodological, empirical and practical issues.

From a methodological point of view, we need to specify a theory consistent demand system and decide on the econometric techniques we will use to estimate it. Moreover, we need to determine the specific exercises we want to perform to evaluate the welfare consequences of the increases in food prices.

From an empirical point of view, we also have some practical issues to address. First, starting with a very detailed and long list of commodities we need to decide on appropriate groupings so to make the estimation of a demand system feasible. We will need to trade off simplicity and the ability to estimate a demand system with the need to keep a sufficient level of detail to capture the effects of changes in relative prices and substitution possibilities. Second, we need to compute price indexes for the commodity groups we use. We do that, from the prices of the component commodities that make each group. As we want to allow for the presence of different prices in different localities and regions (and possibly use this variability to identify the parameters of interest), we need to observe prices at the local level. For

this purpose we can potentially use both price information collected within our survey in local shops and unit values observed in the household survey. Making this information consistent over time is not an easy task.

The rest of the paper is organized as follows. We start by discussing the demand system that we will be estimating using data from Colombia and Mexico. This is done in Section (2), which presents the specific model of demand we estimate, the Quadratic Almost Ideal Demand System (QUAIDS, Banks, Blundell, Lewbel, 1997) and the econometric techniques we employ to estimate it.

In section 3 we present some evidence on the evolution of international prices and how these movements were reflected in the price of basic foods in Colombia and Mexico. In Section 4 we discuss the data sources we use for both Mexico and Colombia and, given that they are related to the evaluation of two large conditional cash transfer programs, provide some information on these programs. Section **??** discuss a number of issues related to the construction of data on prices and quantities from the surveys we use. In addition, we also provide some descriptive evidence on prices and on expenditure patterns. Section 6 presents the results we obtain estimating the demand systems we are studying for both countries. Rather than presenting the coefficients, we discuss both income and price elasticities implied by the estimates. We then move to analyze the welfare implications that our estimated model and different price changes scenarios have for the households in our samples in Section (7) . We look both at averages and distributional consequences of the price changes. Finally, we consider several policy experiments. Section (8) concludes.

2 Model of demand

For our purpose, we want to estimate demand equations to evaluate how the households in our sample react to changes in relative prices. At the same time, we want our demand equations to be theory consistent (or integrable) so that they can be used to compute true price indexes and the welfare costs associated with the increase in price indexes.

2.1 QUAIDS

The Almost Ideal Demand System (AIDS) introduced by Deaton and Muellbauer (1980) combines analytical simplicity with consistency to the theory. More recently, however, Banks, Blundell and Lewbell (1997) suggested a generalization of the AIDS model. The Quadratic Almost Ideal Demand System (QUAIDS) allows for more flexible reactions of expenditure shares to total expenditure (in that it does not constraint them to be monotonic) whilst maintaining theory consistency.

We estimate a QUAIDS of the following form:

$$w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} \ln(p_j) + \beta_i \ln\left(\frac{x}{a(p)}\right) + \frac{\lambda_i}{b(p)} \left(\ln\left(\frac{x}{a(p)}\right)\right)^2 \qquad (1)$$

where w_i is the share of commodity i in total food consumption , x is the total (food) consumption[3] and $a(p), b(p)$ and are price indexes defined by the following equations:

$$\begin{aligned} \ln a\,(p) &= \alpha_o + \sum_k \alpha_k \ln(p_k) + \frac{1}{2} \sum_k \sum_l \gamma_{kl} \ln(p_k) \ln(p_l) \\ b(p) &= {}_{i=1}^{n} p_i^{\beta_i} \end{aligned}$$

For this model to be consistent with utility maximisation, the following theoretical restrictions have to hold:

[3]As we mention below, we will be assuming separability between food and other commodities, so that we will be studying the sub-utility derived from food.

(adding-up)

$$\sum_{i=1}^{n} \alpha_i = 1; \qquad \sum_{i=1}^{n} \beta_i = 0; \qquad \sum_{i=1}^{n} \gamma_{ij} = 0 \qquad \forall j; \qquad \sum_{i=1}^{n} \lambda_i = 0$$

(homogeneity):

$$\sum_{j=1}^{n} \gamma_{ij} = 0 \qquad \forall i$$

(symmetry):

$$\gamma_{ij} = \gamma_{ji}$$

For homogeneity to hold, the price index $a(p)$ must be homogenous of degree 1 in prices and expenditure, and $b(p)$ homogenous of degree 0.

In this model, the price elasticities are as follows:

$$\eta_{ij} = \frac{\mu_{ij}}{w_i} - \delta_{ij} \tag{2}$$

where δ_{ij} is the Kronecker delta, and μ_{ij} and μ_i are given by

$$\begin{aligned} \mu_{ij} &= \frac{\partial w_i}{\partial \ln p_j} = \gamma_{ij} - \mu_i(\alpha_j + \sum_{k=1}^{n} \gamma_{jk} \ln p_k) - \frac{\lambda_i \beta_j}{b(p)} \left\{ \ln \left(\frac{x}{a(p)} \right)^2 \right\} \\ \mu_i &= \frac{\partial w_i}{\partial x} = \beta_i + \frac{2\lambda_i}{b(p)} \left\{ \ln \left(\frac{x}{a(p)} \right) \right\} \end{aligned}$$

The income elasticity is

$$\eta_i = \frac{\mu_i}{w_i} + 1 \tag{3}$$

Banks, Blundell and Lewbel (1997) show that the QUAIDS demand system can be derived from an indirect utility function of the following form:

$$\ln V = \left\{ \left[\frac{\ln x - \ln a(p)}{b(p)} \right]^{-1} + \lambda(p) \right\}^{-1} \tag{4}$$

where $\lambda(p) = \sum_{i=1}^{n} \lambda_i \ln p_i$ is homogenous of degree 0 in prices.

In these equations, demographics are assumed to enter in the intercept term of the shares equations. In particular, for commodity i we assume that the parameter α_i is given by the following expression:

$$\alpha_i = \alpha_{0i} + \sum_{k=1}^{K} \alpha_{ki} z_k \tag{5}$$

where the z_k are the K demographic variables that enter the system. Notice that homogeneity now implies the additional restrictions:

$$\sum_{i=1}^{n} \alpha_{0i} = 1; \qquad \sum_{i=1}^{n} \alpha_{ki} = 0, \qquad \forall k;$$

Note also that the α's enter the definition of $a(p)$. This makes the system non linear and with a large number of cross equation restrictions.

As discussed in BBL, the demand system in equation (1) combines functional form flexibility to consistency with theory, in that it is integrable. [4]

2.2 Separability and commodity groups

In what follows, we assume that utility is separable between food and non food consumption and model explicitly only food consumption. That is, the 'total expenditure' in the indirect utility function in equation (4) is 'total expenditure on food' and the shares in equation (1) are shares of specific food items in total food. There are two main reasons for this choice. First, we only have information on quantities (in addition to expenditure values) for food items. This implies that we cannot construct unit values or price indexes for non-food items. Second, the quality of the information on non-food items consumption seems to be inferior to that of food consumption.

[4] The last term in equation (1) makes the demand system of rank 3, the highest admissible rank for a theory-consistent demand system that is exactly aggregable, in that it is linear in functions of total expenditure.

This might be a function of the different time horizon or of the fact that many of these items are purchased only very irregularly.

The assumption of separability is obviously a strong one and was mainly dictated by the lack of the necessary data to estimate the full system. On the other hand, we do not think that the cost of making this assumption is very high, in the present context. Food consumption represents on average 70% of total expenditure.[5] By ignoring non-food items we are ignoring the possibility of substitution between food and non food and therefore probably obtaining upper bounds on the welfare losses caused by increases in food prices. [6] But, given the importance of food this type of bias should not be large.

Having assumed separability between food and non-food items, we divide food in eight categories. The exact components of each item are discussed below and are listed in Tables 11.M and 11.C. An 8 goods system produces 64 own and cross price elasticities, which is felt to be near the limit of feasibility given the information contained in the data.

Our classification is considerably finer than what is usually done in the literature. The main reason for this difference lies in the fact that, unlike much of the literature, we do not aggregate various types of cereals. Instead we keep as separate items rice, corn, wheat and other starches. The rationale for such a generous grouping of cereals is the specific interest we have in quantifying the welfare consequences of the increases in food prices. As we see below, while the price changes of several cereals were all large, they were not the same. We therefore want to be able to model explicitly the substitutions between different types of cereals in the face of substantial changes in their relative prices. In other words, the conditions for Hicks-aggregation

[5] Another 25% is given by household services (such as utilities, rent etc.). It is debatable whether for these items is reasonable or not to assume separability with food consumption.

[6] This argument is a bit loose as it is not considering the biases induced in the estimation of the subdemand system by assuming separability when it does not hold in reality. It would be impossible to establish what sort of biases in the estimation of own and cross price elasticities arise because of such a false assumption.

(constant relative prices) fail spectacularly over the relevant period and this is potentially important.

As we discuss below, in addition to the four cereals, the other four categories are animal proteins, fruits and vegetables, pulses and other foods. The shares of the first two in total food consumption are particularly important from a nutritional point of view, especially in the context of Mexico, where it is widely perceived that many poor households do not necessarily lack calories but proteins and appropriate micro-nutrients.

2.3 Estimation

We estimate the demand system imposing all of the restrictions from theory. Symmetry is imposed on the price coefficients γ_{ij} of the budget shares of the eight goods in the system. Adding-up and homogeniety are imposed by re-parameterising the α_i, β_i and γ_{ij} in the price indices $\ln a(p)$ and $b(p)$ and the share equations, so that the i=8 terms are expressed in terms of the other parameters. This re-parameterisation leads the model to converge to a solution more quickly than if one attempted to recover the i=8 parameters using explicit parameter restrictions.

We include demographic variables in the α_i terms, as specified in equation 5. As we mentioned above, this implies that they enter additively in the consumption share equations, w_i, as share-shifters, but also enter the price index $\ln a(p)$.

In the case of Mexico, the model is estimated using a sample of about 22,000 households over 6 waves (giving almost 134,000 observations in total). In the case of Colombia, we have almost 19,000 observations distributed over two waves. The share equations with the addition of the control functions (represented by the polynomials in the first stage regression residuals) model are estimated using the non-linear method of iterated seemingly unrelated regressions (non-linear ITSUR). With so many observations and 126 parameters to estimate, and the non linear cross equation restrictions imposed in the

estimation, convergence takes a significant amount of time. Standard errors are clustered at the locality level to take into account the correlation among households living in the same town and a numerical approximation of the delta method is used to calculate standard errors for the income elasticities and both the Marshallian and Hicksian price elasticities.

It has been shown that to estimate the demand system in 1, it is important to take into account the endogeneity of total expenditure and the possible presence of measurement error. To take into account this issue we use a control function approach, which consists in adding to the share equations to be estimated a polynomial in the residuals of the first stage regression for (log) total expenditure. This procedure, which in the linear case is equivalent to instrumental variables, requires the identification of an instrument that affects total expenditure, but is assumed to be excluded from the share equation. In the case of Mexico, we use as instruments an indicator of ppoverty status in 1997 and an average of head earnings. In the case of Colombia, as an instrument we use a measure of expected future income as an instrument. In both cases, the partial F statistic on these variables are very high, indicating that the instruments are good predictors of total food expenditure.

3 Food price increases: Mexico, Colombia and the World.

In the last two years, food prices around the world have increased dramatically while also being very volatile. The increase has been particularly stark for commodities, such as rice, corn and wheat, which constitute the staples for many poor households around the world. Moreover the increases witnessed in the two years to September 2008, probably driven by a combination of many factors, have interrupted a long run trend of declining food prices started more than 20 years ago (see, among others, Timmer, 2008). In recent months, the price of basic staples, like that of other commodities,

has come down.

In this section, to put our welfare analysis into context, we report some of the main patterns in world prices of some basic commodities and compare them to the dynamics observed in the two countries we focus on: Mexico and Colombia. Figures 1 to 4 plot the price of rice corn, wheat and meats for the world, Mexico and Colombia from 1980 to September 2008.For international prices we used the IMF Primary Commodity Prices. For Mexico and Colombia we used national sources. In the graphs we also include the data points for the average price of the localities in rural Mexico that are included in the surveys we will use in the analysis below. While we discuss at length how these locality 'prices' are computed below, here we wanted to show how the dynamics of the data we use in estimation relate to the pattern of national and international prices.Given the size of the changes in prices in the recent period, it is useful to zoom in on the last few years. This is done in Figures 5 to 8, which plot the same series as in Figures 1 to 4, but only for the period October 2003 to September 2008.

The rise in international price of rice, corn and wheat in the last two years is spectacularly evident in the figures and it dwarfs the other spikes visible in the series, especially around 1986. International price of meats climbed to high levels in 2008, similar to those experienced in 1980 and from 1990 to 1994.

Mexico and Colombia were obviously not immune from these increases. The increase in the Mexican prices (the solid line in the figures) and in Colombian prices (the dotted line) closely matches the international price increase for wheat and corn from 2003 to the current period, with the rise in the Mexican price of corn being slightly less pronounced in 2008 (see figure 2 and 3). Interestingly, price of meats has increased more than the international price (see figure 4), especially in the case of Colombia. While the price of rice has been steadily increasing both in Mexico and Colombia, especially in the last two years, the increase has not beeen as large as that

experience in international markets (see figure 1). Remarkably, by and large, the average level of prices in our localities moves very closely with Mexican prices. This constitutes an important check on the quality of our data.

Table 1 summarizes the dynamics of the prices of the same four commodities considered in the pictures between October 2003 (for Mexican prices we use December 2003 as starting point) and October 2007 in all the available prices. We choose October for the comparison as most of the interviews in the last wave of the Mexican survey we use below were conducted during this month.

The general picture is that the dynamics of prices between 2003 and 2007 in Mexico as a nation, and in the rural population in our sample, largely reflect that of international prices. However, the price of rice, both at the nationwide level and in our sample, seems to respond less to the sustained international price rises observed during this period. On the other hand, the price of meats in the localities in our sample went up more than the international and Mexican price. The price of corn in our sample seems to be follow closely international prices, as the sizeable increase in our sample reflects more the world price increase (higher) than the Mexican nationwide increase (smaller). In addition to this, corn is the commodity whose prices increased most in the period 2003-2007 in our sample. The price of wheat offers the most diverse picture: international and Mexican prices doubled in the period, with this being by far the biggest increase among the commodities considered here, while the price in our sample went up much less.

When we look at the increase in the last three years, comparing January and December of each year (September 2008), we find that both in the world at large and in Mexico the prices of corn, wheat and rice have been increasing at different paces in different years. The price of rice rose especially in 2008, while corn registered the largest increases in 2006 and wheat in 2007.

If one couples the fact that corn price is the one that increased more between 2003 and 2007 among the commodities we are considering here and

that corn represent almost 28% of the food budget (see below for additional details on the food groups shares) of the population in our sample, it follows that households in our survey, which is made predominantly of poor households, are affected to a large extent by the increase in prices.

For Colombia, the summary is only slightly different. As for Mexico, we can see that the international trends are reflected to an extent in the national prices. The big exception is, once again, rice, where the increases are much less severe than at the international level. Corn prices are a bit of a puzzle. While in 2006 the increase is very similar to that of Mexico, in 2007 the decline is much more pronounced. In 2008, however the increase is again on line with the Mexican figure and greater than the international increase. It should be noticed, however, that corn is not as important as in Mexico as a staple of poor household. In the case of wheat, the increases are qualitatively similar to those of Mexico, while meats prices increase more than in Mexico in 2006 and 2007, but decrease in 2008.

4 Conditional cash transfers, data sources and descriptive evidence

The main object of this paper is to study the welfare effects of recent price increases in rural Mexico and Colombia. In this section, we describe our data sources, present some descriptive evidence from our survey and discuss a number of data issues related to the construction of prices. It should be stressed at the outset that our data is not representative of rural Mexico or Colombia: we use the surveys collected to evaluate the Conditional Cash Transfer programmes that were implemented in the two countries, PROGRESA/*Oportunidades* in Mexico and *Familias en Acción* in Colombia. Our justification for using these data sources is the richness of the surveys and the fact that they constitute a longitudinal data base that covers, in the case of Mexico, a long time period. We will now discuss the case of the two countries

in turn, starting with Mexico.

4.1 Rural Mexico

Mexico is a middle income country that in the last few decades has seen many changes, including a strong process of urbanization. Its rural population, however, remains an important fraction of the total and one that is disporportionately affected by poverty. The rural poor are also perceived to be particularly vulnerable to external shocks, such as the increases in food prices that we mentioned above.

4.1.1 PROGRESA/*Oportunidades*

Since 1997, the Mexican government has used a Conditional Cash Transfer programme as its main strategy to fight poverty in rural areas. The programme was started under the Zedillo administration and was first known as PROGRESA. The programme consolidated and replaced many pre-existing programmes, including some consisting of in-kind transfers. PROGRESA was expanded since its inception in 1997 to cover about 50,000 localities in 2000 and has become the largest welfare programme of the Mexican government effectively covering almost all of rural Mexico.

Two types of rural localities were not covered by PROGRESA. The first set is constituted of localities that were perceived as not being 'marginalized' and 'poor enough' to need this type of intervention. Some of these localities were included in subsequent expansions of the programme. The second set of localities were places that did not have access to enough health and education infrastructure to allow the beneficiary households to comply with the conditionalities imposed by the programme at a reasonable cost. These localities were covered by other programmes. These details are important for us because we use data from the evaluation of the rural component of PROGRESA/*Oportunidades* and therefore only include localities targeted by this programme. In principle it would be important to perform a similar exercise

for the very marginal localities not covered by PROGRESA.

Unlike many other programmes targeted at rural areas, PROGRESA survived the 2000 change of administration and only changed in name, becoming *Oportunidades* under the Fox administration. In 2002, the programme was expanded to some urban areas, excluding only the largest cities. While the urban programme is identical to the rural one in terms of the size of the grants provided, the registration mechanism is very different. In this paper we do not study households covered by the programme in urban areas, partly because they constitute a very different reality which should probably be the object of a different study and partly because the data available do not include the same detail of information on prices and unit values that is available in the rural survey.

4.1.2 The Mexican data

In order to evaluate PROGRESA and estimate its impact, several large surveys were conducted in some rural areas. The so called 'ENCEL' surveys collect extensive information on all households living in 506 rural localities in seven Mexican states.[7] These 506 villages were randomly allocated to two groups of 320 and 186. In the first group of localities, PROGRESA began operation in mid 1998, while in the rest of the sample the programme started to operate at the end of 1999. Data were collected in March and October 1998, in May and November 1999, in April and November 2000 in villages in both groups.

In October 2003 an additional survey was collected, which included the 506 localities and an additional 150 localities in which Oportunidades was still not operating in 2003. This last subset of localities belong to the set of localities that were not 'poor enough' to be included in the first expansion of

[7]Because of the way PROGRESA and then Oportunidades are targeted, the programme performs a census of all the household living in all rural localities where the programme operates. This survey, labeled ENCASEH, contains information on several variables, but not on consumption and expenditure.

PROGRESA. They are therefore systematically different from those in the original sample. For this reason we exclude them from our analysis. Finally, a large fraction of the localities in the 2003 ENCEL sample were visited and households re-contacted in October 2007 for a follow-up survey. On this last occasion, localities in Chiapas were added to the sample.

The ENCEL surveys constitute the bulk of the data we use for our analysis. Our sample consists of the October 1998, May and November 1999, November 2000 and the 2003 and 2007 survey waves as the other waves did not have sufficient consumption information. As mentioned above, we excluded data from the urban programme roll-out to ensure a relatively homogenous sample and because price data were not available for those surveys. For this reason we also exclude the additional localities surveyed in the 2003 and 2007 ENCEL survey and use only the original 506 localities originally in the 1998 ENCEL.

As we mentioned above, all households living in a locality are interviewed. A large fraction of them is constituted by households who are eligible for PROGRESA/*Oportunidades.* On average, 78% of the households in our localities are beneficiaries. There is a substantial amount of variability in eligibility rates across localities.

Obviously, beneficiary households are 'poorer' than non-beneficiary ones. This can be verified in a variety of dimensions, from the ownership of durables to the fraction of total consumption devoted to food. In any case, the large majority of the households in our sample are quite poor. On average, for instance, food accounts for nearly 70% of their total budget.

The ENCEL surveys contain information on a number of demographic and socio-economic variables. In what follows we make use of the following variables: the sex, age and ethnicity of the head of household, the household size, the number of children and the earnings of the household head. The locality-level average of head-earnings is calculated and used as an instrument for total food consumption (see section (2.3)) Additional household

characteristics variables are available, however, inclusion in our estimated demand systems could overburden the available consumption and price data. Data from 130,000 observations were used in the analysis, corresponding to roughly 21,600 households over 6 survey waves. Descriptive statistics for the variables used in this analysis and other variables of interest can be found in Table 2.M.

One of the main reasons for our use of the ENCEL survey is the richness of the consumption and expenditure data. In the case of food and drink (alcoholic and non alcoholic), the survey contains information on weekly expenditure and quantity purchased, for 36 goods, together with the quantity consumed and home produced. The foods included and their share in the budget can be found in Table 3.M, and cover fruits and vegetables, grains and pulses, meat and animal products, and other foods. The list is supposed to be exhaustive of the foods consumed by these households. Table 4.M reports, for the same foods, the percentage of households consuming the food during the survey week.

In addition to information on food consumed and/or purchased in the last week, the survey contains information about several other items, over different time intervals. In the case of some items, such as utilities, questions are asked about expenditure in the last month, while for some others, such as clothing and furniture, the questions in the survey refer to the last six months. On all these items, however, there is only information on values spent, not on quantities. One, therefore, cannot compute unit values, as in the case of food.

Given that the survey contains information on quantities purchased and consumed as well as the value of expenditure, it is in theory possible to observe prices, or to be more precise, unit values. There are however a large number of measurement issues that need to be addressed. We discuss these in Section 5.

4.2 Rural Colombia

Colombia is poorer than Mexico, but it shares with it a number of features, including the high level of inequality and the fact that rural areas are considerably poorer than urban ones. Besides per capita income, there are also many other differences, ranging from the (lower) relative importance of indigenous populations, to the level of conflict in some areas of the countries, in particular in the period covered by the surveys. The rural poor were particularly affected both by the civil war and by the decline of many traditional crops, as well as other shocks, and in particular the decline in the international prices of coffee.

Colombia, in the late 1990s and early 2000s was affected by the worst recession of the last 40 years. Partly as a reaction to this crisis, the government launched some large welfare programmes, financed with a loan from the World Bank and the Inter American Development Bank. The largest of these programmes was a conditional cash transfer modelled after PROGRESA in Mexico and called *Familias en Acción.* It is to the description of this programme we now turn.

4.2.1 *Familias en Acción*

The Colombian CCT was modeled after PROGRESA and started in 2002 under the name Familias en Acción (FeA). The programme first started in 627 municipalities (there are about 1000 municipalities in Colombia). As with PROGRESA, the first level of targeting is geographic. The idea is to identify localities which are poor but have access to enough infrastructure for the households to be able to comply with the conditionalities imposed by the programme. However, unlike in PROGRESA, where the locality targeted is quite small, FeA targeted entire municipalities, albeit not very large ones in the first wave of expansion. In particular, municipalities were considered eligible for the programme if they had less than 50,000 inhabitants, if they had enough health and education infrastructure, if they had at least one

bank office and if the city offices had updated the list of beneficiaries of social programs.

The last requirement suggests another important difference in the targeting procedure with respect to PROGRESA. While PROGRESA ran a census of the households living in eligible localities to establish eligibility at the household level, FeA used a pre-existing index, the so-called SISBEN which is used in Colombia to target all welfare programmes. In the case of FeA, all households belonging to the lowest level of the size possible of SISBEN were included in the programme.

Although FeA was started at the end of the Pastrana administration, the newly elected President Uribe supported the programme, which soon became the flagship welfare programme of the new administration. In 2005, it was decided to expand FeA to urban areas and larger municipalities, including large metropolitan areas, such as Medellin or Cartagena. The first wave of the programme expansion included around 400k households. Currently more than 1.5 million households are covered by FeA around the country.

4.2.2 The Colombian data

As in the case of PROGRESA, the government of Colombia, encouraged by the IADB and the World Bank , decided to develop an impact evaluation of the programme. However, unlike the case of PROGRESA, there was no random allocation of the programme to different localities during the expansion phase. Instead, for evaluation purposes, a sample of 57 treated municipalities were chosen and those communities were matched with another 65 communities where, for a reason or another, the programme did not start and that were considered 'similar' in a number of dimensions to the 'treated' communities. The main difference between the 'treatment' and 'control' municipalities is the absence of a bank in most of the latter.

Unlike the ENCEL data, the surveys collected for the evaluation of Fea were not a census but a representative stratified sample of about 100 house-

holds per municipality (at baseline). Three surveys were collected, one before the start of the programme in 2002 and two additional ones after the programme started in 2003 and between 2005 and 2006. The initial survey included about 11,500 households of which 6% attrited in the first follow up in 2003 and a further 10% by 2006"

For the purpose of this study we used only the two follow up surveys of 2003 and 2006 and did not use the 2002 baseline. The main reason to EXCLUDE the 2002 data was the presence of some problems in the conversion factors for some of the measures used in assessing quantities for several consumption goods. While we did have conversion factors, we worried about the quality of those data and of the consistency over time with the other two surveys.

As with Mexico, we dropped from the sample some of the outliers in terms of total food consumption and ended up using just under 19,000 observations.

The Familias en Accion evaluation data contains a number of demographic and socio-economic variables, along with household and municipality characteristics. A small subset of the demographic variables including the gender and age of the household head and household composition variables are included in the demand system estimation. Table 2.C reports the means of some of these variables in the two surveys. Compared to Mexico, we notice that the Colombian sample is slightly younger, with a higher proportion of female headed households and with larger families, mainly because of a larger number of children. As for expenditure on food, a comparison is not straightforward given that the figures are expressed in different currencies. Depending on the exchange rate one uses, the two sets of figures are roughly comparable, with the Colombian figures being slightly higher.

The information on weekly consumption and expenditure is much more detailed in the Colombian data than in the Mexican ones: the evaluation of FeA data set reports data on on almost 100 food items, along with information on the quantity purchased and home produced of each. In addition to

the household survey, a shop at the centre of each of the municipalities was surveyed to collect the prices of each of these food items.

The list of commodities is reported in Tables 3.C and 4.C, which correspond to 3.M and 4.M for Mexico. The Colombian data are more detailed than the Mexican ones: Tables 3.C reports data on consumption shares in total consumption for each of the 97 commodities. In Table 4.C, we report the percentage of households who report zero consumption for each item. Notice that virtually all households consume rice, which is the main staple in rural Colombia accounting for over 10% of food expenditure. Rice seem to be as common a staple in Colombia as corn (tortillas) in Mexico. Corn, on the other hand, while not uncommon, only accounts for about 1% of food expenditure Notice also the prevalence in both countries of pulses and potatoes.

5 Quantities and Prices: measurement and aggregation issues

As we want to model in detail the demand for different food items, it is important for us to be clear about what we mean by consumption, expenditure and how that relates to the objects we measure in our data. While the questions in the survey makes explicit reference to 'consumption' and 'expenditure' during the last week, it is likely that for many food items, purchases take place at discrete points in time and with a peridiocity that may not coincide with the week. As a consequence, we might have households whose recorded expenditure is higher than its consumption (or long run average rate of weekly expenditure). On the other hand, we will have households who record a zero purchase even if they are consuming a positive quantity. For these households then the recorded expenditure is lower than its consumption (or long run average rate of weekly expenditure). As the aim of the study is to measure the responsiveness to prices and income of average

weekly expenditures and quantities of foods, it is necessary to include households who make no purchases of particular foods in the data to be analyzed. Hence, households who made zero expenditures on particular foods and food groups during the week prior to the interview are included in the analysis.

5.1 Quantities and Unit Conversions

The calculation of unit values and indeed any calculation involving food consumption is made difficult by the fact that quantities can be recorded in different units for which a credible conversion procedure is not always evident. This problem can occur in any consumption survey where expenditures and quantities are recorded but here is aggravated by the fact that the procedure for the recording of purchase quantities varies across survey waves, and indeed, in some cases procedures appear to have been applied inconsistently across goods and households.

5.1.1 Mexico

In all survey waves, survey interviewers were given instructions to record quantities in either kilograms or litres, and to convert other responses into these units[8]. However, for all surveys with the exception of November 2000, they did have the option of recording quantities in 'piezas' – the number of items purchased – or 'other units'. Whilst these are rarely used for many goods, pieza is the most common for goods such as leafy vegetables and bread varieties (see table A1). Whilst it is possible for different units to be used for different goods, the same units must be used for all instances of a single good. It was decided, for simplicity and comparability, therefore to convert all quantities into kilograms (or litres for milk and carbonated drinks). In order to do this, conversion factors provided by the Instituto Nacional de

[8]In 2003 and 2007 these instructions do not appear on the questionnaire although it seems probable that interviewers were aware of a preference for recording quantities in these units as the numbers reporting other units are very low.

Salud Publica (INSP) were used (see Table A2).

In principle, application of conversation factors should be trivial, however, in this instance, it appears that for certain goods (white bread, sweet bread and loaves of bread), quantities listed as kilograms are actually being recorded in pieza. This became apparent when comparing quantities purchased and unit values in five of the waves with those from November 2000, when respondents and interviewers were only able to record quantities in kilograms or litres. Using this as a baseline for 'plausible' values, the quantities and implied unit values of each good in the other waves were carefully studied to check whether quantities reported in kilos, or litres were actually expressed in these units, or whether they required conversion. The results of this exercise are summarized in Tables A1, which reports for each food items and for each wave whether and for which unit conversion to kilos or litres is needed.

An additional difficulty affecting the 2003 and 2007 surveys is that separate entries are made for kilograms and grams and in some instances, interviewers appear to have recorded a quantity in the wrong unit for bread varieties, in particular. In order to solve these cases it was assumed that quantities of less than 100 could not be grams. Whilst this is, of course, an arbitrary threshold, it successfully prevents the implausibly high or low unit values that mis-recording of unit magnitude causes. This problem affects roughly 2000 observations.

5.1.2 Colombia

Information on quantities purchased and home produced was recorded in a range of units, many of which do not have a credible conversion procedure. This problem is acute in the data we use, particularly in the baseline wave. Quantities could be recorded in any one of 16 units, 9 of which do not have

a credible conversion procedure.[9] In the first follow up and second follow up waves, restrictions were placed on the units in which the quantities of any of the foods could be reported.

In the absence of credible conversion factors, we choose, in the first instance to use the data for quantities reported in a unit that could be easily converted into kilograms or litres (for liquids). However, for some foods, this would mean ignoring a majority of the observations, for instance, 98.1% of observations for bread were reported in unidads (or unit). We therefore choose to measure a set of foods in 'imprecise' units if a majority of the observations are reported in this unit .

In order to compare the unit values over time, it is important that foods are measured in the same unit over time. This is not always the case in our data. In particular, the baseline wave collection allowed for foods to be reported in any one of 16 units. The follow up waves of data, however, restricted the units that each food could be measured in. Given this change in the questionnaire, the units reported for a large number of items in the baseline wave are often not comparable with those reported in the first and second follow up waves. As a result of these problems, we chose to use data from only the first and second follow up waves in the estimation of the demand system.

The variation in units reported creates a further complication in the valuation of food that is consumed but not bought. We can only value consumption if it is reported in the valid unit by at least 1 household in the municipality (prices are computed at the municipality level as will be explained below). This is a large problem for us. About 30 % of quantities that are not bought cannot be valued as a result of this problem. To overcome this problem, we approximate conversion factors between the valid unit and the invalid units (for the imprecise units) by comparing the prices paid

[9]The range of units in which quantities could be recorded included flask, bag, bundle, box/crate, packet, along with easily convertible units such as kilos, grams and litres

for these different units. For example, oranges are reported in units for purchases by a majority of households, but a significant amount of oranges that are consumed but not bought are reported in kilos. We do not have an exact conversion factor from kilos to units. We therefore compare the unit value of 1 kilo of oranges purchased (say 1000 pesos) to that of 1 unit purchased (e.g. 200 pesos) and impute a conversion factor of 1 kilo of oranges = 5 units. We use data from the second follow up wave to approximate these conversion factors . When the conversion factors are applied, we can value 95% of non-bought consumption in the second follow up wave and 80% of non-bought consumption in the first follow up wave.

5.2 Unit Values

Obviously prices are key for our analysis. In both surveys we have potentially two sources of price information we can use: shop prices at the locality level and unit values at the household level. We discuss them in turn, starting with the latter.

To compute a unit value, we need both the expenditure and the quantity of a given item purchased. Given that we have data on these variables, we can divide expenditure by quantity purchased to obtain a unit value. A first issue arises from the fact that this procedure yields unit values that exhibit some variability even within localities. Our demand model assumes that households face a single price within a locality. The variability in unit values may arise from a variety of sources, ranging from measurement error, to non-linear price schedules (as discussed in Attanasio and Frayne, 2006) and quality effects (as discussed in Deaton, 1996 and Crawford and Preston (2003) As our main purpose here is to estimate a demand system to perform a welfare exercise, we ignore these problems and use an ad-hoc procedure to take an average of unit values to represent the price faced by the households living in a village.

5.2.1 Mexico

As usual, there are many ways one can perform these computations. We considered explicitly two main ways. The first, termed 'plutocratic' divides the total expenditure on a food item by a given group of households (for instance those living in a particular locality), by the total quantity purchased by the same group. This gives more weight to the prices paid by those households with the highest expenditure. A second method, termed 'democratic' involves dividing the expenditure of each household by the purchase quantity reported by that household, and then choosing for each good some measure of central tendency within a given group (again, for example, locality) as the unit value for that good. It is the latter approach that we use here, choosing the median unit-value for a good at the lowest appropriate level of grouping. In most instances this is the set of households surveyed in a locality in a given survey wave. However, when fewer than 8 households report positive consumption of a good, or the median price is implausibly high[10] , a wider geographical area was used (firstly, the municipality and finally, the state).

As well as being used to represent 'the' price of a given commodity faced by our households in a given locality, unit values are also used for estimating the value of food items that are not purchased, for which only quantities consumed are recorded.

Whilst our method of taking locality-level median unit values reduces significantly the amount of variability in unit values, we do so because even with our careful checking of units and prices, a small but non-negligible proportion of households report unit values that appear implausible. We chose median unit values rather than means in order to prevent implausible outliers from affecting the unit values used in estimation. For certain goods, only a few households report purchases in the reference week, and together with inaccuracies in reported quantities and expenditures this means that

[10]This threshold is set at 100 pesos for most goods, with the exceptions of certain meat products. It is binding only in a few instances.

unit values are an imperfect measure of the prices consumers face.

Table 5.M shows average median unit values, in constant 2007 prices, over time. The prices are converted to 2007s pesos by dividing them by the CPI (with October 2007 as the base). The final column shows that prices of all goods considered rose in nominal terms between October 1998 and October 2007.

Roughly half of the goods saw a fall in their real price over this period, notably the staple vegetables, rice, beans, and chicken. However, much (or in many cases even all) of this relative price fall took place between October 1998 and May 1999 when prices fell substantially for vegetables, particularly tomatoes. The most rapid price rises (in rice and wheat, especially) took place following the end of this period, although the price or tortilla, a major staple food increased very rapidly in both nominal and real terms between November 2000 and October 2007. In graphs 1 to 4, discussed in section 3 we have compared the time variation of these data with national level prices and found a remarkable correspondence. We therefore think that our measures of prices are plausible approximations to actual prices.

Table 6.M shows the standard deviation of the log of median unit values. This shows that even when taking median unit values there is a reasonable degree of price variation, even for frequently purchased and relatively homogenous goods such as tortillas. However, as expected, the most homogenous goods such as sugar and oil, have the least variation in price. Variation in prices of goods purchased in relatively small quantities is larger but is reduced by moving to a larger geographical unit if fewer than 8 households report expenditure.

5.2.2 Colombia

As in Mexico, unit values present some variability within municipalities, probably reflecting a variety of factors, ranging from measurement errors, to quality effects to bulk discounting to different locations within the mu-

nicipalities. The demand model used assumes that households face a single price within a municipality. Therefore, as in Mexico, we choose to take the median unit value of households living within a municipality to represent the price for the food. Taking the median reduces the variability in unit values significantly and also makes the chosen price measure less sensitive to a few outlying implausible values .

Table 5.C shows the average of the municipality level real median unit values for each of the commodities we consider. The prices are converted into 2006 pesos (with February 2006 as the base) using the CPI for Colombia (obtained from the Banco de Colombia). As with Mexico, in addition to averages, we also report information on the variability of median unit values. Table 6.C, which is equivalent to Table 6.M, reports these figures.

As mentioned above, we chose to calculate unit values for foods only if they were reported in the chosen valid unit for that food. While this valid unit was used to measure a majority of observations for each food in the whole sample, it may be the case that in any particular municipality, no household reports having purchased the food in this valid unit. This could result in missing municipality level unit values. A sizeable proportion of municipality level unit values are missing in our data – 33.8% for the first follow up wave and 31.5% for the second follow up wave. Further, only 14% of municipalities had a price vector covering at least 80% of the 90+ commodities in our data. We choose to construct a fuller price vector for each municipality by filling in missing unit values with the shop prices. More discussion on how the shop prices were collected and their comparability to the prices actually faced by households is in the next paragraph. Filling in for missing unit values using shop prices results in a fall in the proportion of municipality unit values that are missing, but does not eliminate the problem. In the first follow up wave, 20% of prices are still missing. The corresponding figure for the second follow up wave is 15%. To further complete the price vector (to value non-bought consumption), we fill in missing prices using the departmental

level and sample level median unit values.

5.3 Shop prices

In addition to information on individual level purchasing and consumption data, the survey interviewers collected information on prices in one or more stores in most localities for a set of commodities. We discuss this information in both countries.

5.3.1 Mexico

In principle, using shop prices rather than unit values would be desirable in that it would be expected that shop prices would be less affected by measurement error than unit values. However, in this instance, it was not possible to use the shop prices for the estimation of the responsiveness of quantities demanded to changes in prices. This is because the foods for which shop prices are recorded are different from the foods in the individual-level survey questionnaires. In particular, whilst the total number of foods for which there are shop prices is typically greater than the number of foods recorded in the survey, it excludes certain goods such as prickly pears, sweet bread, and breakfast cereals, and uses slightly different definitions for others such as leafy vegetables and tinned fish. In addition, by surveying just one or two stores per locality, many of which stock only a narrow range of goods, the number of observations for certain goods, even relatively common, is very low. For instance, it is possible that a given commodity is not commonly purchased in the local store in a given locality but in local (and possibly mobile) markets. In this case the shop price is missing. Furthermore, different types of stores are surveyed including wholesalers, government-subsidized stores and regular private stores, and price variation may reflect the particular stores surveyed in each municipality rather than general price variation. The price module of the ENCEL improved considerably in 2003 and 2007. However, the improvement in the quality of shop price data makes the time

series variability in these variables unreliable. The method to compute unit values, instead, is consistent over time. Because of all these concerns, it was decided that shop prices could not be used in the main analysis and that unit values were to be preferred.

However, it is possible to use shop prices as a check for the patterns found in the median unit values. Table 7.M shows that there is a similar pattern of price changes for most commodities in shops as reported for unit values. For instance, the large falls in price of many vegetables between October 1998 and May 1999 are notable, as is the rise in the real and nominal price of Tortillas. Table 8.M shows for 6 main commodities the median real unit values and shop prices side-by-side for ease of comparison and demonstrates how levels and patterns are broadly similar.

Table 9.C shows that shop prices are noticeably more variable than median unit values. Whilst this may appear surprising it must be remembered that median unit values are based upon geographical areas where at least 8 households report positive consumption, and that shop prices may have added variability due to the inclusion of stores unlikely to be used by poor consumers (e.g. the wholesalers). Again, relatively homogenous goods such as sugar and oil have lower levels of variability than those with greater variety such as cheese or fish.

Table 10.C shows the degree of correlation between shop prices and median unit values for each commodity by survey wave, and overall. As one would hope, shop prices and unit values are positively correlated (except for fish and lamb/goat, both rarely consumed or available in stores). However, for many goods the degree of correlation is very weak – even for common and homogenous goods such as tortillas. Whilst this is not as one would hope, it should not be entirely unexpected given the shop prices used cover only one store (of varying type), and that median unit values for less-purchased items are often the median at the municipality or even state level.

5.3.2 Colombia

In addition to collecting information on household expenditure and consumption, the survey also collects information on the prices of the same commodities from one shop in each of the municipalities. Information on the price and quantity of each food was collected, along with conversion factors for foods that were reported in the imprecise units (to convert them into precise units such as kilograms or litres).

Table 7.C shows the average real shop prices for our data. Shop prices seem similar to the real median unit values for some of the key commodities such as rice, corn, chicken, carrots, among others. As for Mexico, in Table 8.C, we show for a few important commodities median unit values and shop prices. Once again, the figures show that unit values are not too far away from shop prices.

Table 9.C, as the corresponding table for Mexico, shows the variability across municipalities, of shop prices in each of the two surveys. As with the Mexican data, shop prices appear to be more variable across localities than median unit values.

Table 10.C shows the correlation coefficients of the municipality level median unit values and the shop unit prices. On the whole, shop prices are positively correlated with the unit values, though there are exceptions (such as pasta/vermicelli, cold meats, powdered milk, tongue, feet, garlic, lemonade and bienestarina (which is a nutritional supplement that is usually not bought from shops)). The degree of correlation is weak for many goods, but is reasonable for key foods such as rice, corn, some of the meats, potatoes and some of the vegetables. There is variation in the correlation coefficients over time, with weak correlation for some foods in the first follow up wave and much stronger correlation in the second follow up wave and vice versa.

5.4 Price indices

For practical and computational reasons, we cannot model separately all the commodities for which we have information in the two surveys. Instead, we aggregate food into eight groups: rice, corn, wheat, pulses, fruits, animal products, other foods and other starch.[11] The food groups composition are shown in Tables 11.M and 11.C. The foods were aggregated so as to produce commodities homogenous in terms of their nutritional type and of their prominence in Mexican and Colombian diet. We wanted to keep separate some staple products (rice, wheat and corn) to exploit the differential price dynamics of these goods prices in our welfare analysis and policy simulations. In particular, given that the prices of these different staples have moved differently, we want to account for these differences and at the same time allow for the possibility of substitution effects.

From the data on individual item prices described above, we construct Stone Price indices for the eight food groups for which we estimate a demand system. The sub-group weights used for calculating these are constructed by summing expenditure on each good within a group for a locality and dividing by the total locality expenditure on that food group. Where there is no expenditure on a group in a locality (and the above procedure would involve a denominator of zero), municipality level totals are used. Hence, in contrast to the calculation of unit values, the 'plutocratic' method is used – higher weights are given to those with higher total expenditures. This was done because of the large number of individual households for which total expenditure on particular food groups was zero.

Table 12.M and 12.C report, for each survey and each country, the mean and standard deviation of the log prices indexes for the eight groups we consider in the demand system below. The mean and standard deviation of each commodity are computed across localities. The two panels of the

[11] Alcoholic beverages are left out of the analysis because the way they were recorded in 2003 and 2007 was changed to allow for different type of beverage.

table, therefore, give an idea of the observed price variability which is used to identify the demand system and, therefore, the price elasticities. It should be stressed that there is a considerable amount of volatility in relative prices, both across communities and over time. This variability is extremely useful in estimating the parameters of our model.

5.5 Food Shares

Having discussed the evolution of the price indexes for the eight commodity groups we are considering, we now show some evidence on the evolution of consumption shares for the same groups. We start with the evidence from Mexico, reported in Table 13.M, which contains the evolution of the average and the standard deviation of the eight food group shares over the 6 waves of our sample. Share of food expenditure on corn products is constantly higher than 25% across the 6 waves. Rice and wheat account only for less than 5% of the food budget in our sample, however the increase in the mean wheat share between 2003 and 2007 is noticeable. The share of animal products has also been rising steadily from 1998 to 2007. Finally, households in our sample seem to be switching away from consumption of pulses (beans) over time.

Moving to Colombia, whose figures are contained in Table 13.C, we notice that starches account for about 30% of the food budget, a third of which is rice. Animal products account for another third, while the rest is divided among the other commodities. Between 2003 and 2006 the shares are relatively stable. We only notice a decrease in fruit and vegetables and corn and an increase in wheat and other starches. The changes, however, are not too large.

6 Price and income elasticities of demand

We are finally ready to show the results we obtain estimating the demand system discussed in Section 2 on the two data sets. The coefficients of the demand system 1 are, for the most part, not easy to interpret. For this reason we relegate the estimates of these coefficients to the Appendix. In this section, instead, we use the estimated coefficients to compute the income and price elasticities they imply. We present first the results for Mexico and then those for Colombia. Before doing that, however, we should stress that for both countries the endogeneity of total food expenditure turned out to be important.

As we mentioned above, the estimates were obtained by applying a control function approach, using variation in average log wages across localities in Mexico and some questions on income expectations in the case of Colombia. The control function approach has several advantages, including the fact that an F-test on the joint significance of the coefficients on the powers of the estimated residuals from the first stage can be easily interpreted as a test of endogeneity of the relevant variables. Both in the case of Mexico and Colombia, the powers of the estimated residuals turned out to be statistically different from zero. Moreover, the pattern of the estimated coefficient and elasticities varied in an economically significant way when we allow for endogeneity

6.1 Mexico

6.1.1 Income elasticities

As can be checked in the Appendix table, all the λ_i, the coefficient on the quadratic term in total expenditure in equation 1 are statistically different from zero. This implies that the income elasticity changes with the log of total expenditure and that expenditure shares are not linear in log total expenditure.

Figure 5.M shows the Engel curves implied by our estimates. These plot, for a representative household,[12] the share of each commodity as a function of the log of total expenditure. As expected, rice and corn are necessities, while animal products (meat, dairy product etc.) are luxuries. The share of fruit and vegetables, instead, does not change much with total expenditure. Pulses (beans) seem to be a necessity. The one result that is somewhat surprising is the fact that the share of wheat and other starches (mainly potatoes) is predicted to increase with total log expenditure on food. These increases, however, are not particularly large.

To check how our model fits the data, in Figure 6.M, for each of the eight commodity groups we consider, we plot against log food expenditure, the average shares in the data and how predicted by the model . Figure 6.M differs from 5.M because it does not keep demographics and prices fixed at some level, but let them vary as in the sample. The figure shows that the model fits the data relatively well. With the possible exception of rice, the model mirrors the patterns in the data very closely. The predicted share of rice falls and then rises as income increases; this is perhaps the least best match, missing out the initial rise in rice share and the magnitude of the fall in share as expenditure increases. The predicted share of corn rises at low levels of expenditure and then falls as log of expenditure exceeds about 6.5. The share of wheat increases monotonically as total expenditure increases, and the share of pulses declines monotonically; the model captures this very well. The share of fruits and vegetables first falls as total expenditure rises and then increases, whilst the meat and dairy share rises as total expenditure increases until very high incomes. The predicted share for other foods is almost the inverse; falling with total expenditure but then flattening off. The share of other starches, like rice, is not the best fit but our model does capture the increase in share for the highest incomes.

[12]We consider a family headed by a 45 year old male with primary education, not indigenous and with three children. All the other variables (prices in particular) are set to the sample average.

Income elasticities are computed for each household using equation (3) and the estimated parameters. We report the elasticities evaluated at the mean in the first column of Table 14. The pattern of elasticities reflects the shape of the Engel curves plotted in figures 5.M.

To gauge the level of heterogeneity in elasticities, in Table 4.b.M, we report the average income elasticities for each decile of food expenditure. Again, the pattern of income elasticities follow closely those plotted in Figure 5.M. The variability of the elasticity reflects the importance of the quadratic terms

6.1.2 Price elasticities

In Tables 16.M, we report both uncompensated (Marshallian) and compensated (Hicksian) own and cross price elasticities evaluated at the mean and computed using the formula in equation (2). The own price elasticities are all negative, as predicted by the theory. Note that corn is substitute with wheat and rice. The compensated elasticities are particularly large and significant. Perhaps surprisingly, wheat and rice appear to be complements, and corn is a complement with pulses and other food. Notice that it substitutes also protein and vegetables. Interestingly animal products, in terms of uncompensated elasticities, complement all other commodities. However, in terms of compensated elasticities, they complement only rice and other starches. Rice appears to be a complement to wheat, fruit and vegetables and animal proteins. Wheat is a substitute for other starches and corn.

Given the nature of our demand system, price elasticities will vary across households. In Table 16.b.M, we explore some of this variation. In particular, focusing on the uncompensated own price elasticities, we explore how they vary with total food expenditure and with various household characteristics. First we notice that, by and large, and with the exception of animal products and other starches, price elasticities are larger, in absolute value, for the poorest families. As for demographic effects, the one commodity for which

the own price elasticity varies considerably is animal products. For instance, in a male headed household with no children it is, on average, -0.82, while with three or more children is -0.75.

Table 16.c.M repeats the same exercise as Table 16.b.M, but for compensated elasticities. With the exception of rice, pulses and, to a less of an extent other starches, the price own elasticities do not seem to vary much. For rice and pulses, the elasticities decrease with total expenditure. There are no large variations for the compensated elasticities with demographic variables.

6.2 Colombia

The details for the demand system estimated for Colombia can also be found in the Appendix. As in the case of Mexico, several of the quadratic terms turned out to be important and statistically different from zero. However, these terms are not as important as in Mexico. The presentation of our results for Colombia mirrors that for Mexico. We first discuss the income elasticities and then the implied price elasticities.

6.2.1 Income elasticities

In Figure 5.C, as in Figure 5.M we plot the predicted share for our eight commodities as a function of total food expenditure. As in Figure 5.M, the predicted shares were calculated for a representative family in terms of demographics and at the average values of other variables, such as prices.

We notice that rice, pulses, other starches (potatoes, yucca and other roots) and to a less extent wheat are necessity whose share decreases with total expenditure. Corn is formally a luxury, although its share increase with total expenditure only very slightly, by about half a percentage point over the relevant interval for total food expenditure. Animal products is clearly a luxury, while fruit and vegetables are a luxury at very low levels of total food expenditure and become then a necessity.

As with the Mexican data, we check the goodness of fit of our system

plotting, in Figure 6.C, actual and predicted expenditure shares against total food expenditure. From the picture it is clear that, for all eight commodities, the predicted shares track very well the actual ones. Our model, therefore, seems to fit the data relatively well.

We report the average income elasticities in the second column of Table 14. As with Mexico, the pattern of coefficients is consistent with the patterns observed in the pictures. The only real luxury is Animal products, while other starches and rice and pulses are necessities.

In Table 14b.C, we explore how income elasticities change with the level of log consumption expenditure. As can be observed, fruit and vegetables have an income elasticity just above 1 for the lowest percentiles of total expenditure, which then declines to 0.86. Pulses also exhibit a large variation in elasticities.

6.2.2 Price elasticities

As with the Mexican results, we report both compensated and uncompensated price elasticities. We start, in Table 15.C, with the two sets of elasticities evaluated at the mean. As with Mexico, all own price elasticities are, consistently with the theory, negative. The uncompensated elasticities, compared with those estimated in Mexico, are larger in absolute value, with the one for pulses being particularly noticeable at -2.

Looking at some of the patterns of cross elasticities, we notice that, as with Mexico, animal products seems to complement all other products, as determined by the uncompensated elasticities. In compensated terms, however, animal products seem to substitute pulses, fruit and vegetables, rice and other. The absolute value of these elasticities are, however, quite small. Among the starches, we find that rice is a substitute of wheat and a complement of corn.

In Table 15b.C, we start exploring the heterogeneity of price elasticities in terms of expenditure levels and demographic variables, as it was done

in Table 15b.M. Unlike in Mexico we find that the absolute value of the uncompensated price elasticities increases with total food consumption for rice, pulses and, to an extent, for animal products. Instead it decreases for wheat, other starches, other goods and fruit and vegetables. There are no huge variations with demographic variables.

Analogous observations can be made for the compensated elasticities, reported in Table 15c.C, where the one for rice and pulses increases considerably in absolute value with total expenditure. The one for meat, however, now declines with total expenditure. The other elasticities do not change much.

7 Welfare analysis

Whilst the estimated QUAIDS parameters and the implied income, own-price and cross-price elasticities, are interesting in their own right, of perhaps greater policy relevance is what these results imply for the welfare effects of changes in the food prices. The demand system we have estimated allows us to quantify the welfare loss for the population that is the target of the Conditional Cash Transfers in Colombia and Mexico. We can also quantify the distributional effects of these price changes *within this population.* Finally, we can also study the effect of alternative policies that could be designed to alleviate the problems faced by these families.

In this section, we compute the impact of both actual and counterfactual changes in food prices, and simulate the effects of a few policies the government may use to compensate consumers, including income transfers and price-subsidies. We are able to estimate the welfare impact of price changes for each household separately and can apply different price changes for each locality.

We present welfare impacts in terms of compensating variation: the amount of additional income households would require to make them in-

different between the old price vector (and original income) and the new price vector. This computation is performed using the expression in equation (4) for each household in the sample. For example, to asses the welfare effects of a specific set of price increases, such as the increases observed between 2003 and 2007, given the household characteristics and the estimated parameters we compute x^*_{2007}, total expenditure in 2007 that would obtain the same level of welfare as in 2003, given the 2007 prices. This quantity solves the following equation:

$$\left\{\left[\frac{\ln x_{2003} - \ln a(p_{2003})}{b(p_{2003})}\right]^{-1} + \lambda(p_{2003})\right\}^{-1} = \left\{\left[\frac{\ln x^* - \ln a(p_{2007})}{b(p_{2007})}\right]^{-1} + \lambda(p_{2007})\right\}^{-1}. \tag{6}$$

In making this computation we adjust the 2007 prices for the average rate of inflation between the two years, therefore implicitly assuming that nominal income keeps up for the average level of inflation. Our exercise, therefore, focuses on the effect of the *real* increase in food prices. For each of the two countries we consider several experiments. In particular, we input both actual price increases and hypothetical scenarios where only the prices of some commodities increase. In correspondence to each scenario, then we consider alternative policy options.

7.1 Mexico

For Mexico, we compute the welfare effects of :

1. Prices increases in each locality equal to the actual nominal increase in prices between the 2003 and 2007 surveys.

2. 50% increases in the prices of rice, corn and wheat (but not the other commodities) in each locality.

The policy experiments we consider in each of the two price scenarios are:

- A 50 peso lump-sum transfer to all households.
- A government price subsidy equal to 5% of the new goods price.

7.1.1 Actual 2003 – 2007 Price Changes

As we saw at the beginning of this paper, the period 2003 to 2007 witnessed a significant rise in prices for many food items, particularly grains, and particularly towards the end of the period. If the increase in food prices was not matched by an increase in family incomes, this would mean the living standards of families declined over this period, potentially quite significantly.

In our first exercise, we study the effect of these price increases on the welfare of the households in the Oportunidades data set. Having estimated the demand system, we can solve for x^*_{2007} in equation (6) for each household in the sample. In the first panel of Table 16.M, we report the mean and some percentiles of the distribution of compensating variations. In addition to the peso figures, we also express the compensating variation as percentage of current expenditure. We see that the increases in food prices observed over this period have a potentially devastating effect. At the mean (median), they are equivalent to a 13% (12%) reduction in welfare. The welfare losses are also very heterogeneous: the 5th percentile of the welfare losses is only 1.5%, while the 95th percentile is a staggering 32.3%.

In the second panel of the same Table we consider the effects of providing each family in the sample with a 50 pesos per month subsidy. It should be remembered that a large fraction (almost 80%) of our sample is made of beneficiaries of the programme Oportunidades. In 2007, Oportunidades actually added to their grant 50 pesos per month which were labeled as a subsidy for energy consumption, the idea being that it would help the beneficiary households to cope with the increase in the price of energy. The order of magnitude of our first policy experiment, therefore, is in line with

at least one specific initiative. Perhaps not surprisingly, the effect of this subsidy is to reduce the welfare loss induced by the price increases. At the mean and at the median, the reduction is of about five percentage points (of the initial 12-13%).

In the third panel of Table 16.M, we consider an alternative policy, which consists in providing a 5% subsidy to all prices. This option is obviously much more expensive, if nothing else, because it is not targeted to a specific sector, such as the beneficiaries of Oportunidades, but would affect the entire Mexican population. Moreover, such a policy would introduce distortions in the price systems whose effects are not considered in our computations. Having said that, the effect of such a subsidy would not be substantially better than that of the 50 pesos increase in the grant.

To consider the distributional effects of the price changes and of the different policies we have considered so far, in Figure 7.M we plot the compensating variations in the three scenarios considered in Table 16.M against log total food expenditure. The dotted line, which represents the welfare losses of the actual price increases, shows that they have been very regressive. For households at the bottom of the expenditure distribution, the welfare loss is equivalent to a reduction of 18% in total consumption, while for households at the top of the expenditure distribution, it is equivalent to a decrease of 15%.

Moving to the policy experiments, we see that the welfare losses resulting from the 5% price subsidy, which are the solid line in Figure 7.M, simply shift down the welfare losses of the actual price increases, so that the overall loss is smaller but remains regressive. On the other hand, the dashed line, which represents the effect of the 50 pesos transfer, reduces greatly the regressivity of the price increases and attenuates their effect much more for the poorest families than for the less poor ones.

In Table 17.M, we look at the distribution of the welfare losses in other dimensions. In the top panels of the Table, we compute the welfare losses in

each of the seven states in the sample and discover strong differences. For instance, in Hidalgo, the average welfare loss induced by the 2003-2007 price increases is only 7.4% of expenditure, while in Veracruz is as high as 18%. Interestingly, there does not seem to be a monotonic relationship between the average income of the state and the size of the welfare loss. Two of the poorer states, Guerrero and Veracruz, are at the extreme of the distribution of welfare losses, with 8.7% and 18%, respectively. The same applies to the better off states, such as Hidalgo (7.4%) and San Luis Potosí (15%).

When looking at the effect of the different policies, we find that those we considered reduce the loss by about 5 or 6 percentage points. In the case of Guerrero, the cash transfer is actually marginally better on average than the price subsidy.

In the bottom part of the Table, we consider 9 different types of families, differing in terms of the gender of the head and number of children. An additional group is given by households headed by elderly individuals with no children. When we look at different type of households, we do not find large differences. The policy experiments results are in line with the one reported in the other Tables and graphs.

In addition to the welfare loss, it might be interesting, for a variety of reasons, to check what is the effect of the price increases and of the alternative policies considered on expenditure shares. The pattern of expenditure shares has obvious implications, for instance, for nutrition. It has been argued that the share of animal products in these families food basket might be sub-optimal and might affect the nutritional status of young children and jeopardize their development. We report our computations on the impact of the price changes on expenditure shares in Table 18.M.

Perhaps surprisingly, the expenditure shares of various starches do not change much as an effect of the observed increases in prices, and the share of corn increases. The effect on the share of animal products is quite negative, indicating a reduction of 1.5 percentage points. This is induced by the strong

income effects that the increases have and by the pattern of substitutions estimated in the model. As for the policy experiments, they are both quite successfull in reducing the decline in the share of animal products.

7.1.2 Counterfactual Price Changes

Here we estimate the impact of hypothetical price changes. In particular we consider the impact of a 50% increase in the prices of rice, corn and wheat. The results are shown in table 19.M. The size of the losses is, on average, slightly larger than what we observed for the actual price changes considered in the previous subsection. However, the changes are much more concentrated: the 1st percentile of the welfare loss is 11.4%, and the 99th percentile is now less than 18%. As for the policy analysis, we find that, if the increase is concentrated in the three commodities we are considering, then the cash transfer is much more effective than the 5% price subsidy we considered.

To analyze the distributional consequences of this type of increase in prices and of the different policy alternatives, as with the previous scenario, we plot welfare losses against total expenditure. A doubling of the prices of rice, corn and wheat is even more regressive than the actual price increases (notice the different scale of the graphs): the welfare loss goes from 15% for the poorest consumers in our sample to less than 10% for the least poor. As before, the 5% price subsidy does not change the regressivity of the effects, while a cash transfer makes the overall effect progressive.

Table 20.M explores other distributional effects, looking, as Table 17.M, at regional effects and at the effects of demographic factors. As before, neither of these two sources of heterogeneity seems particularly important.

Finally, to conclude the analysis for Mexico, in Table 21.M we report the effect of the counterfactual changes on expenditure shares. As before we find a large increase in the share of expenditure on corn and a decline in animal

products. These effects are somewhat attenuated by a price subsidy and to a larger extent by a cash transfer.

7.2 Colombia

For Colombia, we consider similar price scenarios to those considered in Mexico and similar policies. In particular, as with Mexico, we consider the effect of the actual price increases for all commodities in the period 2003-2007. We then consider the effect of a 50% in rice, corn and wheat. And for each of these scenarios we consider a cash transfer of 10,000 pesos and a price subsidy. Of course, the results will be different for two different reasons: the price increases experienced by Colombia over the 2003-2007 period were not the same and the coefficients of the demand system and the patterns of substitution and income effects that they imply as a consequence of a given price change are different.

7.2.1 Actual 2003 – 2007 Price Changes

We illustrated in Section 3 the dynamics of price increases in Colombia. In Table 16.C we report the effect of the actual price increases experienced by Colombia in a way that is comparable to the figures in Table 16.M for Mexico.

The effects are, on average, much larger than in Mexico: the price increases induce a mean (and median) welfare loss equivalent to a reduction of 30% in consumption. The range of variation in the sample, however, is much narrower than in Mexico: welfare losses vary from 27.2% for the 1st percentile to 32.6% for the 99th percentile.[13]

A 10,000 pesos cash transfer reduces the mean (median) welfare loss to

[13]The reason losses are much more "concentrated" is because we assume all municipalities face the same price rise (unlike in Mexico where it differs by municipality). We are forced to this assumption by the fact that we cannot use our suvrey (as it was taken before 2007) but we have to use national statistics. Hence the difference in welfare losses is due to different shares of each good and different degrees of price responsiveness (and not different price rises as is the case in Mexico).

26.7% (27.2%), while the 5% price subsidy reduces it to 24.8% (24.9%). The cash transfer reduces much more the smaller losses (for instance the tenth percentile goes from 28.5 to 22.9) than the larger ones (the 90th percentile goes from 31.4 to 29.9). The price subsidy, instead, moves the distribution of losses down by about 5%, uniformly.

As with Mexico, to look at the distributional effects of the price changes and of the policies considered, we plot welfare losses against log of total food expenditure. This is done in Figure 7.C. Unlike in Mexico, the actual price increases over the period 2003-2007 are slightly progressive, with losses rising from about 29% of food expenditure to just over 30%. As for the policies, perhaps not surprisingly the message is similar to the one for Mexico. A price subsidy shifts the curve down, while a cash transfer increases the progressivity of the effect, so that the effect is almost completely eliminated at the bottom of the distribution, and it is reduced to about 28% at the top.

In Table 17.C, which is the equivalent of 17.M, we explore other dimensions of heterogeneity of the effects of price increases. Our sample includes 22 of the 31 districts in the country[14]. The top panel of Table 17.C shows that there are no large differences in the welfare effects of price increases across administrative districts.

In the bottom panel of Table 17.C, we consider, as with Mexico how the welfare effects change with the demographic composition of the household. Again, no large differences emerge in this dimension.

Finally, in Table 18.C we consider the effect of the price increases and of the alternative policies considered on expenditure shares. As with Mexico, the actual price increases determines a decline in the share of animal products. However, in the case of Colombia, the effect is quite large at almost 5 percentage points. The share of rice, which is the most important staple, also declines and that of other starches (mainly potatoes) increases

[14]Excluded are some sparsely populated areas in the Amazon River region and some areas in the south of the country that had been badly affected by the civil conflict.

substantially, as they have become substantially cheaper.

7.2.2 Counterfactual Price Changes

As with Mexico, we consider also a simulation in which we increase the price of corn, rice and wheat by 50%. We report the results of this exercise in Table 19.C. If we compare these effects with those obtained for Mexico in Table 19.M, we notice that for this equivalent increase in prices, the effect in Colombia is smaller. In particular, we find that at both the mean and median, the welfare loss is about 8.6%, against 14.3% in Mexico. The range of welfare losses, however, is similar in the two countries. As with Mexico, the price subsidy shifts the losses down over the whole range, while the cash transfer is particularly effective in offsetting small losses.

Moving to the distributional consequences of such an increase, in Figure 8.C, we observe that the increase is now regressive and that, as in the case of Mexico, a cash transfer makes it progressive, while a price subsidy simply shifts the curve down without changing its slope.

In Table 20.C, we look at how the welfare losses induced by the different price increases and policies considered in this section differ across districts and family types. Once again, we do not find large differences.

Finally, looking at the impact on budget shares in Table 21.C, we find that a 50% increase in the price of rice, corn and wheat, decreases substantially the share of rice, increases the one of other starches and pulses and decreases the share of animal products. The policies considered only marginally reduce these effects. Of the two policies considered, the cash transfer seems to be more effective in reducing the decline in the share of animal products and, therefore, the nutritional impact of the price increases.

8 Conclusion

Estimation of detailed demand models is usually done on aggregated data. This is the first large scale estimation of price responsiveness of food demand for Mexico and Colombia on individual household data, and probably one of the first such exercises on any data from the region. But what is particularly interesting in the data we use, is that they include exclusively very poor households, as they were collected for the evaluation of two conditional cash transfer programs. We exploit variation in prices across localities and over time to estimate the parameters of a rich demand system which, in turn, allows us to assess both income and substitution effects of price changes.

Having estimated the relevant parameters, and having described the elasticities they imply, we use the relevant indirect utility function to estimate the welfare consequences of the price increases for each household in our samples. Notice that as we can control for several factors (such as regional effects and demographic composition), and that we are able to allow for large amount of heterogeneity in the impacts of food prices changes. Using the indirect utility function is equivalent to computing a 'true' price index that takes into account the substitution possibility and, most importantly, the relevance of the food share for these households. We can therefore characterize both the mean welfare effect of the price increases and their distributional consequences.

In addition to quantifying the welfare consequences of different sets of price increases for the households in our samples, we can also compute the effects of alternative policies. In particular, we consider two policies that are often considered in the policy debate. The first is a subsidy to prices. The second is a cash transfer. It should be noticed that the latter policy has many advantages over the first, some of which are not considered in our simulations. First, it is much better targeted and, probably, much less expensive than a generalized price subsidy. Second, it avoids the introduction of distortions and allows for supply responses. Third, as our simulations show, it moderates

or even reverses the regressivity of some price increases.

Our work is not without limitations and much has been left for future research. Two extensions seem particularly important. First, we have not considered commodities other than food nor have we considered labour supply. This assumes that food is separable both from other commodities and from labour supply. If these assumptions are violated, our results could be biased. Second, we have not allowed for any income effects induced by supply factors. If some of our households produce items whose price increases, this would be reflected in an increased income. This point, made by Deaton (1989), Ravallion and Lokshin (2004) and Ravallion and van de Walle (1991) could be easily incorporated in our analysis, especially if one is interested in a situation where production decisions are not modeled explicitly and one takes them as given in the short run. In this case, the price increase has a positive income effect for producer whose size, as a first order approximation, is simply given by the current output times the price increase.

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Table 1: World, Mexico, Colombia and *Oportunidades* Prices

FOOD	WORLD	MEXICO	COLOMBIA	OPORTUNIDADES
Rice				
% increase:				
2003-2007	64.4	32.6	17.6	33.2
2006	8.7	-9.1	17.3	n/a
2007	20.6	15.8	0.00	n/a
2008	83.5	51.0	38.2	n/a
Corn				
% increase:				
2003-2007	57.5	48.8	2.5	53.7
2006	56.4	31.4	32.2	n/a
2007	9.2	-0.4	-6.1	n/a
2008	13.3	20.9	20.6	n/a
Wheat				
% increase:				
2003-2007	127.3	94.9	70.0	41.2
2006	22.2	12.2	17.6	n/a
2007	88.0	57.1	43.5	n/a
2008	-20.0	-18.3	-0.01	n/a
Meats				
% increase:				
2003-2007	17.8	27.4	40.8	30.3
2006	6.6	4.5	3.8	n/a
2007	0.2	7.2	23.9	n/a
2008	6.7	5.4	-3.9	n/a

Notes:

For the increase 2003-2007 we use the price value in October (not for Mexico prices that start from December 2003), in order to match the period in which interviews were conducted in our survey. Increases in 2006 and 2007 are betwen price value in January and December, 2008 is between January and September.

World prices: Rice (Rice, 5 percent broken milled white rice, Thailand nominal price quote) Corn (Maize (corn), U.S. No.2 Yellow, FOB Gulf of Mexico), Wheat (Wheat, No.1 Hard Red Winter, ordinary protein, FOB Gulf of Mexico), Meats (Beef, Australian and New Zealand 85% lean fores, FOB U.S. import price).

Mexico prices: These are producer prices (for the national market) and include the following foods in each group: Rice (Rice), Corn (Maize Tortilla, Maize grain, Breakfast cereals), Wheat (White bread, Sweet bread, Loaf of bread, Wheat flour, Biscuits), Meats (Chicken, Beef and pork, Goat and sheep, Fish, Sardines and tuna, Eggs, Milk Cheese, Lard)

Colombia prices: These are the average reference prices from the Colombia agricultural exchange (Bolsa Nacional Agropecuaria).

Oportunidades prices: These are an average of the median locality unit values in our sample. Each group includes the same foods as in Mexico prices

Table 2.M: Demographic Characteristics of Sample - Mexico

Demographic Variable	Oct-98	May-99	Nov-99	Nov-00	2003	2007
Headed by Male	89.4%	89.3%	88.1%	88.0%	86.3%	79.7%
Age of Head	47.2	47.5	46.5	49.1	47.9	48.0
Headed by Indiginous Person	33.3%	33.5%	30.7%	32.6%	34.1%	25.4%
Oportunades Operating	61.7%	61.6%	59.9%	100.0%	100.0%	100.0%
Household Size	5.5	5.2	5.2	5.0	5.2	5.8
Number of Children Under 11	1.7	1.8	1.4	1.8	1.3	1.1
Number of Children Over 11	1.5	1.5	1.4	1.5	1.5	1.3
Food Expenditure	805.50	780.58	775.21	797.61	1085.17	1280.47

Table 2.C: Demographic Characteristics of Sample - Colombia

Demographic Variable	Oct-03	Mar-06
Headed by Male	79.20%	75.5%
Age of Head	45.73	47.42
Household Size	6.09	6.00
Number of Children Under 11	2.13	1.83
Number of Children Over 11	1.10	1.18
Food Expenditure	336789.10	320543.10

Notes: Food Expenditures measured in **nominal** prices. Additional Demographics available but not used in analysis.

Table 3.M: Foods and Mean Shares of Expenditure - Mexico

	AVERAGE SHARE (%)						%change 98-07
FOOD	**OCT 98**	**MAY 99**	**NOV 99**	**NOV 00**	**2003**	**2007**	
1 Tomatoes	5.6	3.9	4.4	5.0	5.2	6.5	16.1
2 Onions	2.9	2.5	2.5	3.0	2.4	2.9	0.0
3 Potatoes	2.3	2.2	2.4	2.6	2.6	3.1	34.8
4 Carrots	0.2	0.2	0.1	0.2	0.3	0.4	100.0
5 Leafy Vegetables	0.3	0.2	0.2	0.5	0.4	0.5	103.8
6 Oranges	1.6	0.7	2.0	2.8	1.7	1.5	-6.3
7 Bananas	1.4	1.5	1.6	1.7	2.1	2.0	42.9
8 Apples	0.7	0.3	0.6	0.7	1.5	1.5	120.6
9 Lemons	0.8	0.8	0.8	0.8	1.1	1.1	44.7
10 Pricky pears	0.6	1.2	0.4	0.5	0.7	0.9	48.3
11 Tortilla	21.0	19.0	21.0	19.0	24.0	22.0	4.8
12 Maize Grain	7.9	12.0	5.8	4.9	3.1	6.8	-13.9
13 White Bread	0.7	0.7	0.7	0.6	1.4	1.0	32.4
14 Sweet Bread	1.3	1.5	2.0	1.7	2.7	1.7	30.8
15 Loaf of Bread	0.1	0.1	0.1	0.1	0.2	0.1	13.1
16 Wheat Flour	0.3	0.2	0.2	0.2	0.3	0.2	-4.0
17 Pasta Soup	2.3	2.2	2.4	2.2	2.1	1.9	-17.4
18 Rice	2.2	2.2	2.2	2.4	1.9	2.2	0.0
19 Salt Cakes	0.5	0.5	0.4	0.5	0.7	0.7	39.6
20 Beans	12.0	11.0	11.0	9.4	7.4	7.6	-36.7
21 Breakfast Cereal	0.1	0.1	0.1	0.1	0.2	0.2	174.0
22 Chicken	5.2	5.9	6.8	8.4	7.0	6.5	25.0
23 Beef and Pork	2.2	2.6	3.2	2.9	3.7	2.8	27.3
24 Lamb and Goat	0.1	0.1	0.0	0.1	0.1	0.1	-31.5
25 Fish	0.1	0.2	0.1	0.2	0.4	0.3	161.5
26 Tinned Fish	0.3	0.4	0.7	0.4	0.6	0.4	18.2
27 Eggs	5.2	5.5	5.4	6.1	4.4	5.0	-3.8
28 Milk	2.4	2.1	2.5	2.8	4.2	4.2	75.0
29 Cheese	0.8	0.6	0.7	1.1	1.7	1.8	140.0
30 Lard	1.0	1.0	0.9	0.8	0.7	0.3	-68.0
31 Sweets	0.0	0.0	0.0	0.0	0.1	0.0	19.0
32 Carbonated Drinks	1.4	1.9	1.5	2.3	3.2	2.4	71.4
33 Alcoholic Drinks	0.2	0.2	0.2	0.2	0.4	0.2	-33.3
34 Coffee	5.1	5.0	5.0	4.4	2.5	2.7	-47.1
35 Sugar	5.2	5.7	6.0	5.5	4.8	4.0	-23.1
36 Vegetable Oil	5.7	6.1	6.3	6.0	4.0	4.5	-21.1

Table 3.C: Means and Shares of Expenditure - Colombia

		AVG SHARE (%)					AVG SHARE (%)					AVG SHARE (%)		
	Food	July - Oct-03	Nov 05- Mar-06	%change 06-03		Food	July - Oct-03	Nov 05- Mar-06	%change 06-03		Food	July - Oct-03	Nov 05- Mar-06	%change 06-03
1	Rice	10.49	10.42	-0.64	**37**	Tangarines	0.29	0.21	-28.47	**73**	Yam	0.32	0.80	148.03
2	Bread	2.51	2.76	10.00	**38**	Banana	0.70	0.75	6.73	**74**	Yucca	2.66	2.78	4.66
3	Biscuits	0.92	1.54	67.17	**39**	Melon	0.02	0.02	8.44	**75**	Other root veg	0.08	0.05	-36.01
4	Other bread products	0.09	0.07	-15.21	**40**	Mango	0.46	0.66	42.79	**76**	Condiments	0.59	0.57	-3.25
5	Pasta/Vermicellli	1.79	1.66	-7.57	**41**	Guava	1.56	0.50	-68.00	**77**	Tomato sauce, etc	0.19	0.21	13.06
6	Barley Cereal	0.08	0.07	-7.32	**42**	Blackberry	0.30	0.23	-25.53	**78**	Juice concentrates	0.58	0.55	-4.60
7	Malt Soup	0.06	0.05	-14.40	**43**	Passion Fruit	0.31	0.16	-47.70	**79**	Coffee	3.14	3.37	7.44
8	Corn Soup	0.12	0.13	6.58	**44**	Pineapple	0.38	0.27	-28.79	**80**	Chocolate/Cocoa	1.03	0.97	-5.56
9	Wheat Soup	0.04	0.04	23.92	**45**	Coconut	0.16	0.16	4.48	**81**	Aromatic herbs	0.13	0.11	-19.92
10	Corn flour	0.24	0.32	32.97	**46**	Other fruit	1.07	0.85	-20.23	**82**	Salt	0.75	0.82	9.48
11	Precooked corn flour	1.22	0.93	-23.52	**47**	Green beans	0.67	0.52	-22.79	**83**	Sugar (refined, brown	2.93	2.86	-2.26
12	Corn	1.28	1.01	-20.56	**48**	Carrots	0.76	0.63	-17.22	**84**	Unprocessed Sugar	3.25	2.98	-8.37
13	Wheat Flour	0.67	0.64	-5.76	**49**	Broad beans	0.12	0.04	-63.64	**85**	Vegetable oil	4.02	4.17	3.61
14	Infant Feeding Cereals	0.32	0.14	-54.23	**50**	Tomatoes	1.51	1.46	-3.36	**86**	Vegetable fat	0.59	0.55	-6.80
15	Hueso de res	2.34	2.22	-5.09	**51**	Spring Onions	0.97	0.92	-4.99	**87**	Butter	0.21	0.25	22.33
16	Menudencias de pollo	1.00	0.88	-11.40	**52**	Onions	0.90	0.95	5.75	**88**	Margarine	0.06	0.06	-7.09
17	Chicken/hen	3.90	3.49	-10.56	**53**	Cob	0.70	0.28	-60.05	**89**	Lard	0.12	0.08	-34.53
18	Beef without bone	5.09	5.76	13.20	**54**	Green peas	0.29	0.23	-20.71	**90**	Lemonade	0.29	0.41	37.49
19	Beef with bone	0.67	0.83	23.66	**55**	Lettuce	0.09	0.11	19.42	**91**	Packaged drinks	0.03	0.05	33.55
20	Mincemeat	0.11	0.19	70.18	**56**	Kidney beans	0.48	0.21	-56.59	**92**	Powdered cool drinks	0.34	0.53	57.08
21	Pork without bone	0.83	0.73	-12.14	**57**	Spinach	0.12	0.05	-60.83	**93**	Bottled water	0.11	0.20	77.46
22	Pork with bone	0.76	0.43	-43.46	**58**	Beet	0.04	0.03	-14.96	**94**	Eggs	3.08	3.73	21.06
23	Goat/Sheep	0.15	0.06	-59.22	**59**	Cabbage	0.35	0.28	-19.10	**95**	Avena (oats)	n/a	0.50	n/a
24	Other bird meat	0.07	0.17	124.46	**60**	Garlic	0.52	0.55	4.53	**96**	Bienestarina	n/a	0.78	n/a
25	Canned meat	0.09	0.11	31.49	**61**	Aji	0.59	0.30	-47.92	**97**	Liver	n/a	0.18	n/a
26	Cold meats	0.24	0.32	33.65	**62**	Other green veg	0.23	0.07	-68.35					
27	Tongue, feet, etc	0.32	0.16	-49.00	**63**	Chick peas	0.10	0.08	-24.57					
28	Fish	3.66	4.75	29.74	**64**	Dry peas	0.42	0.40	-4.23					
29	Seafood	0.03	0.04	22.98	**65**	Dry beans	2.32	2.04	-12.41					
30	Tuna/Sardines	0.88	1.06	19.89	**66**	Lentils	0.98	1.04	5.70					
31	Milk	5.00	4.39	-12.21	**67**	Other grains	0.07	0.09	28.84					
32	Powdered milk	1.18	1.39	18.27	**68**	Plantains	3.13	3.44	10.10					
33	Curdled cheese	2.58	1.96	-23.88	**69**	Small plantain	0.67	0.66	-1.13					
34	Other dairy products	0.53	0.35	-33.13	**70**	Potatoes	2.64	3.29	24.32					
35	Oranges	0.80	0.65	-18.21	**71**	Creole potatoes	0.32	0.37	14.24					
36	Lemons	0.98	0.69	-29.01	**72**	Arracacha	0.25	0.17	-31.79					

Table 4.M: Foods and Proportion Consuming them - Mexico

	Proportion Consuming/Purchasing (%)						%change 98-07
Food	OCT 98	MAY 99	NOV 99	NOV 00	2003	2007	
1 Tomatoes	89	93	96	97	95	93	4.5
2 Onions	91	95	96	96	94	91	0.0
3 Potatoes	51	53	57	61	62	68	33.3
4 Carrots	8.4	8.3	7	8.4	15	17	102.4
5 Leafy Vegetables	8.6	7.8	5.6	15	16	16	86.0
6 Oranges	34	17	43	52	40	31	-8.8
7 Bananas	43	43	46	50	60	49	14.0
8 Apples	15	5.9	13	15	33	30	100.0
9 Lemons	31	29	33	31	47	45	45.2
10 Pricky pears	16	33	9.9	14	16	23	43.8
11 Tortilla	90	77	88	89	91	77	-14.4
12 Maize Grain	44	58	30	30	19	35	-20.5
13 White Bread	18	15	14	12	26	19	5.6
14 Sweet Bread	30	32	35	30	47	30	0.0
15 Loaf of Bread	1.7	1.3	0.89	1.2	3.2	2.1	23.5
16 Wheat Flour	6.6	3.2	5	3.5	8	4.7	-28.8
17 Pasta Soup	68	65	71	66	68	62	-8.8
18 Rice	64	62	64	70	66	68	6.3
19 Salt Cakes	14	12	10	12	20	18	28.6
20 Beans	97	96	97	97	91	94	-3.1
21 Breakfast Cereal	0.98	1.4	1.3	1.5	3.1	3.5	257.1
22 Chicken	41	45	52	60	58	50	22.0
23 Beef and Pork	19	21	24	22	30	22	15.8
24 Lamb and Goat	0.55	0.53	0.2	0.38	0.48	0.3	-45.5
25 Fish	1.5	1.7	1.2	1.6	4.2	3.4	126.7
26 Tinned Fish	6.7	6.8	11	7.2	13	8.1	20.9
27 Eggs	83	84	84	88	79	77	-7.2
28 Milk	26	20	23	27	40	42	61.5
29 Cheese	12	9.3	9.3	16	25	26	116.7
30 Lard	16	16	14	11	13	6.7	-58.1
31 Sweets	0.46	0.28	0.37	0.33	1.4	0.62	34.8
32 Carbonated Drinks	19	20	17	25	37	30	57.9
33 Alcoholic Drinks	2.6	1.4	1.7	1.6	2.9	1.1	-57.7
34 Coffee	69	66	70	65	50	43	-37.7
35 Sugar	93	94	97	94	92	77	-17.2
36 Vegetable Oil	85	85	89	88	85	76	-10.6

Table 4.C: Foods and Proportion Consuming Them - Colombia

	(% Consuming)				(% Consuming)				(% Consuming)		
Food	July - Oct-03	Nov 05- Mar-06	%change 06-03	Food	July - Oct-03	Nov 05- Mar-06	%change 06-03	Food	July - Oct-03	Nov 05- Mar-06	%change 06-03
1 Rice	89.34	88.32	-1.02	**37** Tangarines	11.17	8.37	-2.80	**73** Yam	8.82	21.43	12.61
2 Bread	61.27	62.86	1.59	**38** Banana	26.65	29.09	2.44	**74** Yucca	60.49	66.12	5.63
3 Biscuits	25.90	27.29	1.39	**39** Melon	2.08	1.71	-0.37	**75** Other root veg	3.35	2.67	-0.69
4 Other bread products	3.62	2.49	-1.13	**40** Mango	11.27	14.82	3.55	**76** Condiments	54.45	52.82	-1.63
5 Pasta/Vermicellli	69.69	68.12	-1.57	**41** Guava	36.28	23.21	-13.07	**77** Tomato sauce, etc	10.60	11.70	1.09
6 Barley Cereal	4.30	4.50	0.20	**42** Blackberry	11.84	10.27	-1.57	**78** Juice concentrates	48.82	40.54	-8.28
7 Malt Soup	3.23	3.43	0.20	**43** Passion Fruit	10.49	7.96	-2.54	**79** Coffee	69.79	70.02	0.23
8 Corn Soup	7.40	8.19	0.79	**44** Pineapple	8.86	11.55	2.69	**80** Chocolate/Cocoa	29.15	27.69	-1.46
9 Wheat Soup	1.76	2.18	0.43	**45** Coconut	14.66	15.58	0.92	**81** Aromatic herbs	8.26	7.17	-1.09
10 Corn flour	7.72	10.85	3.13	**46** Other fruit	19.25	18.45	-0.80	**82** Salt	83.54	85.93	2.39
11 Precooked corn flour	36.48	29.93	-6.55	**47** Green beans	13.90	13.03	-0.88	**83** Sugar (refined, brown)	72.61	74.57	1.96
12 Corn	24.37	22.72	-1.65	**48** Carrots	48.85	46.54	-2.31	**84** Unprocessed Sugar	72.60	74.14	1.54
13 Wheat Flour	30.21	28.64	-1.57	**49** Broad beans	2.14	1.81	-0.33	**85** Vegetable oil	77.29	79.93	2.64
14 Infant Feeding Cereals	11.65	3.85	-7.80	**50** Tomatoes	71.69	73.59	1.90	**86** Vegetable fat	21.62	17.84	-3.78
15 Hueso de res	43.80	42.59	-1.21	**51** Spring Onions	57.30	57.09	-0.21	**87** Butter	9.13	10.14	1.01
16 Menudencias de pollo	31.17	27.59	-3.59	**52** Onions	59.14	62.04	2.90	**88** Margarine	2.66	2.60	-0.05
17 Chicken/hen	36.83	39.44	2.61	**53** Cob	12.16	6.06	-6.10	**89** Lard	2.44	1.68	-0.76
18 Beef without bone	48.79	51.71	2.93	**54** Green peas	9.78	9.70	-0.08	**90** Lemonade	8.17	11.03	2.86
19 Beef with bone	8.09	9.94	1.85	**55** Lettuce	9.89	11.73	1.84	**91** Packaged drinks	2.21	2.80	0.59
20 Mincemeat	3.29	4.78	1.49	**56** Kidney beans	20.97	16.02	-4.95	**92** Powdered cool drinks	20.19	27.44	7.25
21 Pork without bone	9.87	10.49	0.61	**57** Spinach	6.42	4.99	-1.43	**93** Bottled water	6.20	3.75	-2.45
22 Pork with bone	8.67	5.37	-3.30	**58** Beet	3.29	3.42	0.13	**94** Eggs	76.21	83.18	6.97
23 Goat/Sheep	1.49	0.63	-0.86	**59** Cabbage	27.48	25.33	-2.15	**95** Avena (oats)	n/a	25.76	n/a
24 Other bird meat	0.59	1.80	1.21	**60** Garlic	54.72	56.63	1.90	**96** Bienestarina	n/a	30.52	n/a
25 Canned meat	2.51	3.06	0.55	**61** Aji	32.18	26.09	-6.09	**97** Liver	n/a	4.55	n/a
26 Cold meats	8.27	9.89	1.62	**62** Other green veg	14.97	5.89	-9.08				
27 Tongue, feet, etc	6.44	3.86	-2.58	**63** Chick peas	4.24	3.60	-0.65				
28 Fish	34.81	46.30	11.49	**64** Dry peas	22.25	21.43	-0.82				
29 Seafood	0.30	0.40	0.10	**65** Dry beans	50.00	47.84	-2.16				
30 Tuna/Sardines	24.45	29.07	4.62	**66** Lentils	48.37	52.63	4.26				
31 Milk	65.82	60.80	-5.02	**67** Other grains	2.17	2.96	0.79				
32 Powdered milk	18.14	19.02	0.87	**68** Plantains	67.86	71.02	3.17				
33 Curdled cheese	42.91	35.69	-7.22	**69** Small plantain	21.73	19.96	-1.77				
34 Other dairy products	17.41	12.93	-4.48	**70** Potatoes	73.61	70.28	-3.33				
35 Oranges	31.48	25.51	-5.97	**71** Creole potatoes	14.65	14.18	-0.48				
36 Lemons	53.15	41.37	-11.78	**72** Arracacha	8.59	7.58	-1.02				

Note: Avena, bienestarina and liver were only included in the Nov 05-March 06 survey.

Table 5.M: Average Real Median Unitvalues - Mexico

	Average Real Median Unit Value over Time						% Change	% Change
Food	**Oct-98**	**May-99**	**Nov-99**	**Nov-00**	**2003**	**2007**	**(Real)**	**(Nominal)**
1 Tomatoes	17.15	8.80	9.31	10.08	11.37	12.83	**-25.2%**	**27.3%**
2 Onions	12.50	8.59	8.60	8.60	9.43	9.21	**-26.3%**	**25.3%**
3 Potatoes	12.66	10.17	9.53	8.57	10.15	9.31	**-26.5%**	**25.0%**
4 Carrots	9.93	7.95	7.96	8.24	8.70	8.40	**-15.4%**	**43.9%**
5 Leafy Vegetables	15.24	14.35	11.44	10.62	15.80	15.70	**3.0%**	**75.2%**
6 Oranges	5.77	4.82	4.75	4.34	5.25	5.85	**1.3%**	**72.3%**
7 Bananas	6.49	5.76	5.45	5.20	5.54	7.37	**13.5%**	**93.0%**
8 Apples	15.92	15.66	12.56	14.05	12.09	12.88	**-19.1%**	**37.6%**
9 Lemons	8.64	8.35	7.62	8.08	7.60	8.28	**-4.1%**	**63.1%**
10 Pricky pears	10.58	7.55	9.48	10.50	10.55	10.24	**-3.2%**	**64.7%**
11 Tortilla	5.00	4.93	4.46	3.96	5.92	8.22	**64.5%**	**179.8%**
12 Maize Grain	3.57	3.23	3.12	2.83	3.29	3.98	**11.6%**	**89.7%**
13 White Bread	17.76	16.18	17.01	18.89	17.00	19.14	**7.8%**	**83.3%**
14 Sweet Bread	19.65	17.57	18.41	17.77	17.30	21.79	**10.9%**	**88.6%**
15 Loaf of Bread	16.27	14.33	11.83	18.99	20.62	19.59	**20.4%**	**104.8%**
16 Wheat Flour	7.35	6.62	7.03	6.84	5.98	6.66	**-9.4%**	**54.0%**
17 Pasta Soup	18.32	17.59	16.56	15.52	16.55	16.08	**-12.2%**	**49.3%**
18 Rice	12.47	11.72	11.05	9.68	7.84	8.82	**-29.3%**	**20.2%**
19 Salt Cakes	21.77	19.75	16.34	15.52	19.00	24.35	**11.8%**	**90.2%**
20 Beans	19.29	15.58	14.88	12.37	12.44	12.56	**-34.9%**	**10.7%**
21 Breakfast Cereal	22.48	17.77	16.81	18.17	34.41	24.84	**10.5%**	**88.0%**
22 Chicken	36.09	33.87	30.68	31.16	28.47	29.75	**-17.6%**	**40.2%**
23 Beef and Pork	45.47	40.07	39.76	42.81	39.55	44.38	**-2.4%**	**66.0%**
24 Lamb and Goat	47.75	40.27	52.08	48.54	55.60	86.86	**81.9%**	**209.4%**
25 Fish	30.96	33.04	34.51	31.30	34.74	33.36	**7.7%**	**83.3%**
26 Tinned Fish	88.57	85.79	57.09	33.31	47.98	71.98	**-18.7%**	**38.2%**
27 Eggs	17.16	15.13	14.67	14.07	13.46	14.21	**-17.2%**	**40.8%**
28 Milk	8.39	8.95	8.87	8.60	9.00	9.78	**16.6%**	**98.4%**
29 Cheese	54.53	58.98	47.94	45.07	49.82	57.18	**4.9%**	**78.3%**
30 Lard	19.91	16.70	16.33	16.40	14.48	15.10	**-24.2%**	**29.0%**
31 Sweets	36.04	45.03	52.45	33.08	34.17	39.56	**9.8%**	**86.7%**
32 Carbonated Drinks	11.24	8.37	8.28	8.20	7.90	7.05	**-37.3%**	**6.7%**
33 Alcoholic Drinks	15.66	13.16	13.23	16.64	16.10	18.66	**19.1%**	**102.5%**
34 Coffee	43.36	36.07	35.56	34.25	54.34	44.76	**3.2%**	**75.5%**
35 Sugar	10.18	9.19	8.80	8.07	8.23	9.46	**-7.1%**	**58.0%**
36 Vegetable Oil	17.50	15.79	15.12	13.75	12.26	14.13	**-19.3%**	**37.3%**
37 Price Index	**0.59**	**0.65**	**0.68**	**0.74**	**0.84**	**1.00**	**0.0%**	**70.1%**

Notes: Prices are an unweighted average of lowest-available-area median unit values in constant October 2007 prices. Between October 1998 and October 2007 the overall price level had increased by approximately 70%. The lowest-available-area is typically locality, although for products consumed less frequently, this may be municipality or state.

Table 5.C: Average Real Median Unitvalues - Colombia

Average Real Median Unit Value over Time									
Food Type	July - Oct-03	Nov 05- Mar-06	% Change (Real)	% Change (Nominal)	Food Type	July - Oct-03	Nov 05- Mar-06	% Change (Real)	% Change (Nominal)
Rice	1704.01	1566.93	**-8.0%**	**3.4%**	Tomatoes	1766.25	1848.46	**4.7%**	**17.48%**
Bread	191.88	145.51	**-24.2%**	**-15.0%**	Spring Onions	1953.20	1917.93	**-1.8%**	**10.27%**
Biscuits	1616.87	1716.58	**6.2%**	**19.4%**	Onions	1910.69	1938.40	**1.5%**	**14.07%**
Other bread products	721.22	731.96	**1.5%**	**13.2%**	Cob	1706.09	1575.15	**-7.7%**	**4.56%**
Pasta/Vermicellli	2999.85	2517.13	**-16.1%**	**-5.7%**	Green peas	2801.14	2848.10	**1.7%**	**14.14%**
Barley Cereal	2195.40	1858.12	**-15.4%**	**-5.2%**	Lettuce	2007.90	2139.80	**6.6%**	**19.27%**
Malt Soup	1747.88	1833.21	**4.9%**	**17.9%**	Kidney beans	1960.94	1835.28	**-6.4%**	**5.03%**
Corn Soup	1581.95	1450.50	**-8.3%**	**2.9%**	Spinach	2192.49	1887.15	**-13.9%**	**-2.89%**
Wheat Soup	1764.21	1832.31	**3.9%**	**16.7%**	Beet	2027.74	1864.35	**-8.1%**	**3.11%**
Corn flour	1816.54	1823.75	**0.4%**	**12.8%**	Cabbage	1642.07	1537.83	**-6.3%**	**4.96%**
Precooked corn flour	2111.34	1906.09	**-9.7%**	**1.5%**	Garlic	210.15	213.41	**1.6%**	**14.23%**
Corn	1359.70	1111.85	**-18.2%**	**-8.2%**	Aji	2726.10	2380.96	**-12.7%**	**-2.31%**
Wheat Flour	1668.73	1583.65	**-5.1%**	**6.7%**	Oth green veg	1795.30	1669.35	**-7.0%**	**4.47%**
Infant Feeding Cereal	8847.87	2300.00	**-74.0%**	**-71.7%**	Chick peas	3381.12	2945.86	**-12.9%**	**-2.02%**
Hueso de res	3024.10	2825.00	**-6.6%**	**5.0%**	Dry peas	2250.04	2018.53	**-10.3%**	**0.76%**
Menudencias de pollo	2505.97	2310.42	**-7.8%**	**3.7%**	Dry beans	3709.74	3622.44	**-2.4%**	**9.69%**
Chicken/hen	5375.55	5163.54	**-3.9%**	**7.9%**	Lentils	2536.92	2236.48	**-11.8%**	**-0.99%**
Beef without bone	7576.60	7482.66	**-1.2%**	**11.0%**	Other grains	3012.75	2675.93	**-11.2%**	**-0.57%**
Beef with bone	5241.73	5038.52	**-3.9%**	**8.1%**	Plantains	228.08	227.05	**-0.4%**	**11.89%**
Mincemeat	6706.29	6395.65	**-4.6%**	**7.3%**	Small plantain	935.64	1054.38	**12.7%**	**28.66%**
Pork without bone	6490.74	6267.28	**-3.4%**	**8.5%**	Potatoes	971.10	1140.58	**17.5%**	**32.02%**
Pork with bone	5312.40	5062.34	**-4.7%**	**7.0%**	Creole potato	1282.89	1398.56	**9.0%**	**22.87%**
Goat/Sheep	5872.50	5824.21	**-0.8%**	**10.7%**	Arracacha	1474.85	1486.12	**0.8%**	**12.89%**
Other bird meat	5145.43	4562.14	**-11.3%**	**1.4%**	Yam	1463.28	1017.65	**-30.5%**	**-22.11%**
Canned meat	7772.42	6954.14	**-10.5%**	**0.5%**	Yucca	983.66	965.23	**-1.9%**	**10.18%**
Cold meats	6182.19	6122.75	**-1.0%**	**11.1%**	Oth root veg	1608.09	1416.28	**-11.9%**	**-2.18%**
Tongue, feet, etc	4576.88	4135.76	**-9.6%**	**1.7%**	Condiments	252.20	265.72	**5.4%**	**17.52%**
Fish	5224.87	4918.85	**-5.9%**	**5.8%**	Tomato sauce, etc	757.67	746.83	**-1.4%**	**10.56%**
Seafood	4608.75	5080.56	**10.2%**	**23.2%**	Juice concentrates	185.19	199.96	**8.0%**	**21.28%**
Tuna/Sardines	1779.19	1688.28	**-5.1%**	**6.6%**	Coffee	9596.71	10877.8	**13.3%**	**27.45%**
Milk	887.66	965.33	**8.8%**	**22.3%**	Chocolate/Cocoa	8736.30	7368.09	**-15.7%**	**-5.27%**
Powdered milk	9178.26	7894.82	**-14.0%**	**-3.3%**	Aromatic herbs	678.69	869.53	**28.1%**	**43.42%**
Curdled cheese	5734.70	6513.76	**13.6%**	**27.4%**	Salt	636.98	613.57	**-3.7%**	**8.41%**
Other dairy prod	2277.32	2291.17	**0.6%**	**12.6%**	Sugar (refined, brown)	1719.99	1593.66	**-7.3%**	**4.16%**
Oranges	108.48	112.25	**3.5%**	**16.2%**	Unprocessed Sugar	747.18	603.45	**-19.2%**	**-9.40%**
Lemons	71.10	76.92	**8.2%**	**21.3%**	Vegetable oil	3748.56	3212.38	**-14.3%**	**-3.67%**
Tangarines	1849.50	2139.12	**15.7%**	**32.6%**	Vegetable fat	4158.69	4122.43	**-0.9%**	**11.41%**
Banana	113.06	106.68	**-5.6%**	**6.07%**	Butter	6617.13	5921.97	**-10.5%**	**0.52%**
Melon	2265.84	1715.48	**-24.3%**	**-14.30%**	Margarine	7024.94	5525.21	**-21.3%**	**-11.61%**
Mango	1508.97	2001.91	**32.7%**	**50.05%**	Lard	3818.37	3802.55	**-0.4%**	**12.53%**
Guava	1442.53	1487.00	**3.1%**	**15.68%**	Lemonade	1702.88	1486.04	**-12.7%**	**-2.05%**
Blackberry	2567.88	2699.97	**5.1%**	**18.14%**	Packaged drinks	1906.26	2004.17	**5.1%**	**22.01%**
Passion Fruit	1945.90	1881.55	**-3.3%**	**8.49%**	Powdered cool drinks	497.22	464.90	**-6.5%**	**5.00%**
Pineapple	2112.03	1846.78	**-12.6%**	**-0.16%**	Bottled water	396.18	597.03	**50.7%**	**67.27%**
Coconut	2472.99	1205.78	**-51.2%**	**-45.19%**	Eggs	225.08	201.50	**-10.5%**	**0.64%**
Other fruit	2210.72	2214.91	**0.2%**	**12.56%**	Avena (oats)	n/a	2372.97	**n/a**	**n/a**
Green beans	2845.41	2979.52	**4.7%**	**17.53%**	Bienestarina	n/a	1308.33	**n/a**	**n/a**
Carrots	1361.72	1396.17	**2.5%**	**15.52%**	Liver	n/a	6757.35	**n/a**	**n/a**
Broad beans	2098.13	1804.44	**-14.0%**	**-4.98%**	**Price Index (CPI)**	**88.96**	**100.00**		**11.0**

Notes: All the unitvalues are reported in February 2006 prices. Prices were deflated using a general CPI from the Bank of Colombia. All median unitvalues are in Colombian pesos.

Table 6.M: Standard Deviation of Log Median Unit Values - Mexico

	Standard Deviation of Real Log Median Unit Values by Time					
Food Type	**Oct-98**	**May-99**	**Nov-99**	**Nov-00**	**2003**	**2007**
Tomatoes	0.036	0.098	0.127	0.154	0.084	0.212
Onions	0.113	0.105	0.063	0.128	0.093	0.102
Potatoes	0.144	0.140	0.131	0.207	0.172	0.140
Carrots	0.149	0.217	0.184	0.120	0.212	0.181
Leafy Vegetables	0.119	0.131	0.187	0.124	0.116	0.121
Oranges	0.191	0.126	0.122	0.220	0.165	0.209
Bananas	0.176	0.154	0.130	0.179	0.142	0.111
Apples	0.095	0.149	0.112	0.084	0.046	0.109
Lemons	0.187	0.119	0.160	0.099	0.143	0.174
Pricky pears	0.184	0.128	0.121	0.205	0.210	0.081
Tortilla	0.063	0.203	0.239	0.266	0.202	0.075
Maize Grain	0.097	0.088	0.084	0.070	0.168	0.091
White Bread	0.301	0.299	0.320	0.301	0.000	0.152
Sweet Bread	0.328	0.339	0.449	0.254	0.121	0.252
Loaf of Bread	0.683	0.531	0.728	0.213	0.165	0.119
Wheat Flour	0.195	0.191	0.254	0.333	0.070	0.091
Pasta Soup	0.137	0.160	0.118	0.139	0.090	0.076
Rice	0.092	0.060	0.105	0.074	0.075	0.089
Salt Cakes	0.301	0.269	0.124	0.186	0.240	0.203
Beans	0.079	0.040	0.045	0.118	0.076	0.076
Breakfast Cereal	0.195	0.097	0.130	0.437	0.229	0.089
Chicken	0.047	0.064	0.065	0.056	0.074	0.065
Beef and Pork	0.112	0.136	0.163	0.132	0.152	0.169
Lamb and Goat	0.297	0.252	0.587	0.180	0.312	0.300
Fish	0.149	0.210	0.331	0.264	0.192	0.161
Tinned Fish	0.075	0.093	0.442	0.165	0.245	0.098
Eggs	0.033	0.054	0.000	0.058	0.061	0.079
Milk	0.110	0.102	0.139	0.134	0.143	0.094
Cheese	0.140	0.131	0.118	0.146	0.103	0.125
Lard	0.102	0.121	0.105	0.117	0.181	0.123
Sweets	0.171	0.448	0.579	0.642	0.170	0.140
Carbonated Drinks	0.252	0.085	0.080	0.045	0.087	0.111
Alcoholic Drinks	0.242	0.263	0.260	0.193	0.160	0.180
Coffee	0.173	0.201	0.166	0.347	0.632	0.219
Sugar	0.013	0.000	0.000	0.013	0.027	0.058
Vegetable Oil	0.053	0.054	0.054	0.059	0.055	0.044

Notes: Prices are an unweighted average of lowest-available-area median unit values in constant October 2007 prices. The lowest-available-area is typically locality, although for products consumed less frequently, this may be municipality or state.

Table 6.C: Standard Deviation of Median Unit Values - Colombia

	Standard Deviation of Real Median Unit Values by Time							
Food Type	**July - Oct-03**	**Nov 05- Mar-06**	**Food Type**	**July - Oct-03**	**Nov 05- Mar-06**	**Food Type**	**July - Oct-03**	**Nov 05- Mar-06**
Rice	150.68	144.50	Tangarines	978.80	960.54	Yam	458.05	441.59
Bread	221.14	212.04	Banana	29.71	28.52	Yucca	262.55	251.73
Biscuits	298.81	286.64	Melon	719.53	751.76	Other root vegetables	1240.97	1210.06
Other bread products	1444.88	1387.70	Mango	671.24	653.52	Condiments	236.01	225.83
Pasta/Vermicellli	521.35	500.11	Guava	479.73	460.51	Tomato sauce, etc	458.13	440.04
Barley Cereal	853.20	819.94	Blackberry	580.61	557.72	Juice concentrates	28.02	26.84
Malt Soup	338.55	326.65	Passion Fruit	616.14	592.03	Coffee	1171.58	1123.72
Corn Soup	349.57	335.13	Pineapple	804.51	798.04	Chocolate/Cocoa	2730.08	2618.68
Wheat Soup	375.07	362.01	Coconut	0.00	0.00	Aromatic herbs	306.19	295.62
Corn flour	411.54	395.37	Other fruit	966.21	928.57	Salt	102.33	98.32
Precooked corn flour	296.24	284.35	Green beans	964.01	925.48	Sugar (refined, brown)	135.20	129.71
Corn	585.82	561.76	Carrots	320.09	295.83	Unprocessed Sugar	418.78	401.43
Wheat Flour	222.51	213.82	Broad beans	703.87	666.52	Vegetable oil	307.85	295.34
Infant Feeding Cereals	9993.29	9698.22	Tomatoes	542.34	519.73	Vegetable fat	838.94	805.32
Hueso de res	855.54	820.80	Spring Onions	561.91	538.79	Butter	1646.33	1577.83
Menudencias de pollo	678.77	652.09	Onions	477.67	458.29	Margarine	3009.86	2895.14
Chicken/hen	756.22	724.78	Cob	977.05	948.26	Lard	1312.53	1256.74
Beef without bone	1115.24	1069.34	Green peas	817.34	784.53	Lemonade	458.09	439.36
Beef with bone	1239.56	1190.06	Lettuce	904.91	869.34	Packaged drinks	1224.42	1179.62
Mincemeat	1226.97	1182.13	Kidney beans	554.68	531.80	Powdered cool drinks	94.36	90.49
Pork without bone	1333.34	1279.79	Spinach	867.92	840.00	Bottled water	361.90	349.75
Pork with bone	1137.31	1092.26	Beet	957.49	926.96	Eggs	20.90	20.07
Goat/Sheep	1191.33	1148.54	Cabbage	693.14	664.81	Avena (oats)	n/a	599.76
Other bird meat	2302.00	2275.91	Garlic	76.25	73.20	Bienestarina	n/a	777.83
Canned meat	3844.13	3710.30	Aji	2258.44	2173.76	Liver	n/a	1197.02
Cold meats	3294.01	3165.95	Other green vegetables	914.25	880.21			
Tongue, feet, etc	1523.71	1463.38	Chick peas	711.10	683.54			
Fish	1421.18	1364.54	Dry peas	537.42	515.36			
Seafood	2375.26	2619.39	Dry beans	700.70	672.46			
Tuna/Sardines	381.10	365.89	Lentils	327.69	312.98			
Milk	300.28	288.15	Other grains	1138.99	1098.09			
Powdered milk	1760.84	1689.67	Plantains	91.35	87.67			
Curdled cheese	1317.96	1270.10	Small plantain	573.33	548.20			
Other dairy products	1074.54	1032.40	Potatoes	280.37	269.06			
Oranges	33.39	32.04	Creole potatoes	382.51	362.26			
Lemons	34.79	33.39	Arracacha	508.33	489.63			

Table 7.M: Average Real Shop Prices - Mexico

	Average Real Shop Price over Time						% Change	% Change
Food Type	**Oct-98**	**May-99**	**Nov-99**	**Nov-00**	**2003**	**2007**	**(Real)**	**(Nominal)**
Tomatoes	17.92	9.04	9.38	10.72	11.66	12.86	**-28.2%**	**22.1%**
Onions	11.53	7.66	8.62	8.49	9.60	8.40	**-27.2%**	**23.9%**
Potatoes	11.95	9.94	10.70	8.97	10.85	9.27	**-22.4%**	**32.0%**
Carrots	7.94	6.15	7.23	5.98	6.88	7.25	**-8.7%**	**55.3%**
Leafy Vegetables	14.82	15.93	18.52	16.18	16.98	17.09	**15.3%**	**96.2%**
Oranges	5.70	4.83	5.30	4.41	5.22	7.10	**24.6%**	**111.9%**
Bananas	6.07	6.58	5.80	5.37	5.59	7.24	**19.3%**	**102.9%**
Apples	15.90	18.35	14.05	15.25	14.62	30.96	**94.7%**	**231.2%**
Lemons	7.65	7.58	6.78	6.95	6.92	7.86	**2.8%**	**74.8%**
Pricky pears	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**
Tortilla	5.87	6.29	5.93	6.45	7.21	7.76	**32.2%**	**124.8%**
Maize Grain	n/a	3.67	5.37	3.03	3.45	5.15	**n/a**	**n/a**
White Bread	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**
Sweet Bread	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**
Loaf of Bread	15.10	14.47	18.43	13.63	23.21	22.90	**51.6%**	**157.9%**
Wheat Flour	6.75	6.45	6.71	6.10	5.73	6.91	**2.3%**	**73.9%**
Pasta Soup	3.79	3.57	3.91	3.83	3.44	3.59	**-5.4%**	**60.9%**
Rice	11.38	10.87	10.47	9.30	7.76	9.12	**-19.9%**	**36.3%**
Salt Cakes	4.52	4.44	5.05	4.37	4.31	4.75	**5.0%**	**78.5%**
Beans	18.96	15.87	14.31	12.91	12.83	12.20	**-35.7%**	**9.4%**
Breakfast Cereal	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**
Chicken	37.71	32.62	28.78	30.55	29.85	30.96	**-17.9%**	**39.6%**
Beef and Pork	45.49	40.52	38.87	38.15	38.72	36.92	**-18.8%**	**38.0%**
Lamb and Goat	66.61	68.78	18.19	31.67	55.93	18.00	**-73.0%**	**-54.0%**
Fish	36.64	37.44	25.45	32.55	43.46	27.03	**-26.2%**	**25.4%**
Tinned Fish	91.75	88.54	91.26	77.61	68.81	73.50	**-19.9%**	**36.3%**
Eggs	17.61	14.58	14.03	15.34	13.81	15.14	**-14.0%**	**46.3%**
Milk	9.88	10.07	10.47	9.55	9.72	10.60	**7.3%**	**82.6%**
Cheese	52.41	38.77	32.54	41.26	40.77	43.00	**-18.0%**	**39.5%**
Lard	18.61	17.08	15.89	15.99	13.76	14.65	**-21.3%**	**33.9%**
Sweets	30.71	33.48	43.64	34.57	36.95	38.73	**26.1%**	**114.5%**
Carbonated Drinks	9.51	10.36	10.73	10.36	11.96	11.26	**18.5%**	**101.5%**
Alcoholic Drinks	17.11	17.89	15.55	16.45	n/a	n/a	**n/a**	**n/a**
Coffee	88.25	88.82	87.98	79.37	148.45	124.20	**40.7%**	**139.4%**
Sugar	9.88	9.13	9.45	8.12	8.66	9.21	**-6.7%**	**58.6%**
Vegetable Oil	17.09	15.71	14.79	13.10	12.21	13.92	**-18.5%**	**38.6%**
Price Index	**0.59**	**0.65**	**0.68**	**0.74**	**0.84**	**1.00**	**0.0%**	**70.1%**

Notes: Prices are an unweighted average of reported shop prices in the main shop contacted in each locality, in constant October 2007 prices. Shop prices are not available for the full range of goods. Between October 1998 and October 2007 the overall price level had increased by approximately 70%.

Table 7.C: Average Real Shop Prices - Colombia

	Average Real Shop Price over Time					Average Real Shop Price over Time			
Food Type	**July - Oct-03**	**Nov 05- Mar-06**	**% Change (Real)**	**% Change (Nominal)**	**Food Type**	**July - Oct-03**	**Nov 05- Mar-06**	**% Change (Real)**	**%Change (Nominal)**
Rice	1679.64	1572.55	**-6.38**	**5.24**	Tomatoes	1570.85	1856.13	**18.16**	**32.82**
Bread	126.17	153.11	**21.35**	**36.41**	Spring Onions	1823.13	2044.74	**12.16**	**26.07**
Biscuits	1659.86	1801.76	**8.55**	**22.02**	Onions	1837.46	1771.44	**-3.59**	**9.74**
Other bread products	1092.86	n/a	**n/a**	**n/a**	Cob	696.77	2163.38	**210.49**	**249.01**
Pasta/Vermicellli	5122.50	2625.51	**-48.75**	**-42.39**	Green peas	3239.50	3197.48	**-1.30**	**10.95**
Barley Cereal	13154.85	2133.95	**-83.78**	**-81.77**	Lettuce	1682.88	2051.91	**21.93**	**37.06**
Malt Soup	1743.21	1766.77	**1.35**	**13.93**	Kidney beans	1930.94	1998.80	**3.51**	**12.61**
Corn Soup	1513.39	1490.87	**-1.49**	**10.74**	Spinach	1795.33	2212.42	**23.23**	**38.52**
Wheat Soup	1832.21	1664.00	**-9.18**	**2.09**	Beet	1256.41	1807.97	**43.90**	**75.40**
Corn flour	1853.58	1718.07	**-7.31**	**4.19**	Cabbage	1068.49	1288.87	**20.63**	**35.59**
Precooked corn flour	2168.45	1936.86	**-10.68**	**0.40**	Garlic	249.59	227.64	**-8.79**	**2.52**
Corn	1280.00	1246.43	**-2.62**	**9.46**	Aji	2924.27	7262.10	**148.34**	**179.15**
Wheat Flour	1670.39	1544.81	**-7.52**	**3.96**	Oth green veg	2058.14	1763.14	**-14.33**	**-3.70**
Infant Feeding Cereals	170496	16964	**-90.05**	**-88.82**	Chick peas	3341.35	3308.14	**-0.99**	**10.29**
Hueso de res	3074.95	3026.75	**-1.57**	**10.65**	Dry peas	2084.18	1817.49	**-12.80**	**-1.98**
Menudencias de pollo	2534.32	2210.34	**-12.78**	**-0.98**	Dry beans	3691.92	3990.87	**8.10**	**21.51**
Chicken/hen	5387.18	5453.86	**1.24**	**13.80**	Lentils	2630.16	2010.24	**-23.57**	**-14.09**
Beef without bone	7789.64	7869.75	**1.03**	**13.14**	Other grains	3110.40	2750.65	**-11.57**	**-0.59**
Beef with bone	5287.26	5617.25	**6.24**	**19.42**	Plantains	258.10	247.22	**-4.22**	**7.67**
Mincemeat	6910.76	6629.64	**-4.07**	**7.84**	Small plantain	742.84	1538.67	**107.13**	**132.84**
Pork without bone	7205.89	7444.08	**3.31**	**16.12**	Potatoes	903.35	1186.66	**31.36**	**47.66**
Pork with bone	5896.23	6092.86	**3.33**	**16.16**	Creole potatoes	1384.62	1601.95	**15.70**	**30.05**
Goat/Sheep	6526.54	6308.39	**-3.34**	**5.96**	Arracacha	1430.81	1522.85	**6.43**	**19.64**
Other bird meat	8157.35	7241.29	**-11.23**	**-0.21**	Yam	1432.59	1080.18	**-24.60**	**-15.24**
Canned meat	5580.52	10633	**90.54**	**114.18**	Yucca	1037.66	967.49	**-6.76**	**4.81**
Cold meats	6768.25	6188.63	**-8.56**	**2.78**	Oth root veg	1524.37	1319.23	**-13.46**	**7.83**
Tongue, feet, etc	4839.78	4768.69	**-1.47**	**10.76**	Condiments	195.13	439.27	**125.12**	**153.05**
Fish	6476.43	5776.54	**-10.81**	**8.75**	Tomato sauce, etc	1028.88	n/a	**n/a**	**n/a**
Seafood	15121.10	12186.7	**-19.41**	**7.31**	Juice concentrates	175.92	199.98	**13.67**	**27.78**
Tuna/Sardines	1897.85	1841.67	**-2.96**	**9.08**	Coffee	9336.91	12523.8	**34.13**	**50.78**
Milk	1090.44	1240.07	**13.72**	**27.83**	Chocolate/Cocoa	9537.37	7825.37	**-17.95**	**-7.77**
Powdered milk	44493.45	9245.85	**-79.22**	**-76.64**	Aromatic herbs	1003.03	n/a	**n/a**	**n/a**
Curdled cheese	6246.85	6677.97	**6.90**	**19.47**	Salt	566.74	590.08	**4.12**	**17.04**
Other dairy products	2775.62	5890.33	**112.22**	**138.55**	Sugar (refined, brown)	1644.69	1640.19	**-0.27**	**12.74**
Oranges	111.95	150.98	**34.86**	**51.59**	Unprocessed Sugar	608.24	513.59	**-15.56**	**-2.73**
Lemons	66.64	117.82	**76.80**	**98.73**	Vegetable oil	3671.72	3047.12	**-17.01**	**-6.71**
Tangarines	635.06	1826.57	**187.62**	**206.29**	Vegetable fat	4355.50	3872.33	**-11.09**	**-0.06**
Banana	128.24	125.11	**-2.44**	**9.66**	Butter	6842.19	6267.17	**-8.40**	**5.79**
Melon	1661.21	1882.34	**13.31**	**27.37**	Margarine	7038.25	6830.83	**-2.95**	**9.10**
Mango	1265.79	2107.23	**66.47**	**87.13**	Lard	4188.65	3714.53	**-11.32**	**-0.32**
Guava	1444.00	1613.22	**11.72**	**25.58**	Lemonade	1562.59	1764.62	**12.93**	**26.94**
Blackberry	2731.72	2838.19	**3.90**	**15.91**	Packaged drinks	1130.25	3265.24	**188.90**	**224.74**
Passion Fruit	1754.91	2068.86	**17.89**	**32.52**	Powdered cool drinks	554.55	439.36	**-20.77**	**-9.54**
Pineapple	1671.86	1648.28	**-1.41**	**10.82**	Bottled water	5229.63	1921.83	**-63.25**	**-58.69**
Coconut	1197.71	5802.23	**384.44**	**444.55**	Eggs	214.12	200.33	**-6.44**	**3.83**
Other fruit	2291.46	2764.72	**20.65**	**35.62**	Avena (oats)	n/a	2978.18	**n/a**	**n/a**
Green beans	2646.95	2996.28	**13.20**	**27.24**	Bienestarina	n/a	1240.83	**n/a**	**n/a**
Carrots	1144.60	1216.99	**6.32**	**19.52**	Liver	n/a	6860.34	**n/a**	**n/a**
Broad beans	1673.60	1857.61	**10.99**	**24.77**	**Price Index**	**88.96**	**100**	**n/a**	**11.04**

Table 8.M: Key Commodities Real Prices- Mexico

	Mean Real Price			Mean Real Price	
Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Tomatoes			***Potatoes***		
OCT-98	17.15	17.92	**OCT-98**	12.66	11.95
MAY-99	8.80	9.04	**MAY-99**	10.17	9.94
NOV-99	9.31	9.38	**NOV-99**	9.53	10.70
NOV-00	10.08	10.72	**NOV-00**	8.57	8.97
2003	11.37	11.66	**2003**	10.15	10.85
2007	12.83	12.86	**2007**	9.31	9.27
All	11.59	11.93	**All**	10.06	10.28

Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Maize tortilla			***Rice***		
OCT-98	5.00	5.87	**OCT-98**	12.47	11.38
MAY-99	4.93	6.29	**MAY-99**	11.72	10.87
NOV-99	4.46	5.93	**NOV-99**	11.05	10.47
NOV-00	3.96	6.45	**NOV-00**	9.68	9.30
2003	5.92	7.21	**2003**	7.84	7.76
2007	8.22	7.76	**2007**	8.82	9.12
All	5.41	6.58	**All**	10.26	9.82

Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Chicken			***Beans***		
OCT-98	36.09	37.71	**OCT-98**	19.29	18.96
MAY-99	33.87	32.62	**MAY-99**	15.58	15.87
NOV-99	30.68	28.78	**NOV-99**	14.88	14.31
NOV-00	31.16	30.55	**NOV-00**	12.37	12.91
2003	28.47	29.85	**2003**	12.44	12.83
2007	29.75	30.96	**2007**	12.56	12.20
All	31.67	31.74	**All**	14.52	14.51

Notes: Unit Values are an unweighted average of lowest-available-area median unit values in constant October 2007 prices where the lowest-available area is typically a locality, but occasionally municipality or state for less frequently consumed goods. Shop Prices are an unweighted average of reported shop prices in the main shop contacted in each locality, in constant October 2007 prices.

Table 8.C: Key Commodities Real Prices - Colombia

	Mean Real Price			Mean Real Price	
Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Rice			***Potatoes***		
OCT-03	1704.01	1679.64	**OCT-03**	971.01	903.35
MAR-06	1566.93	1572.55	**MAR-06**	1140.58	1186.66
Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Corn			***Carrots***		
OCT-03	1359.70	1280.00	**OCT-03**	1361.72	1144.60
MAR-06	1111.85	1246.43	**MAR-06**	1396.17	1216.99
Food Type	**Median UV**	**Shop Price**	**Food Type**	**Median UV**	**Shop Price**
Green Beans			***Eggs***		
OCT-03	2845.41	2646.95	**OCT-03**	225.08	214.12
MAR-06	2979.52	2996.28	**MAR-06**	201.50	200.33

Notes: Unit Values are an unweighted average of lowest-available-area median unit values in constant October 2007 prices where the lowest-available area is typically a locality, but occasionally municipality or state for less frequently consumed goods. Shop Prices are an unweighted average of reported shop prices in the main shop contacted in each locality, in constant October 2007 prices.

Table 9.M: Standard Deviation of Log Shop Prices - Mexico

	Standard Deviation of Real Log Shop Price by Time					
Food Type	**Oct-98**	**May-99**	**Nov-99**	**Nov-00**	**2003**	**2007**
Tomatoes	0.361	0.290	0.380	0.404	0.273	0.361
Onions	0.367	0.413	0.425	0.345	0.370	0.328
Potatoes	0.402	0.298	0.415	0.353	0.361	0.342
Carrots	0.386	0.460	0.378	0.370	0.303	0.344
Leafy Vegetables	0.370	0.402	0.573	0.416	0.310	0.306
Oranges	0.477	0.492	0.411	0.435	0.407	0.515
Bananas	0.329	0.376	0.387	0.312	0.320	0.247
Apples	0.310	0.355	0.366	0.468	0.333	0.303
Lemons	0.483	0.523	0.425	0.551	0.393	0.378
Pricky pears	n/a	n/a	n/a	n/a	n/a	n/a
Tortilla	0.227	0.152	0.419	0.170	0.352	0.373
Maize Grain	n/a	0.349	0.660	0.296	0.365	0.497
White Bread	n/a	n/a	n/a	n/a	n/a	n/a
Sweet Bread	n/a	n/a	n/a	n/a	n/a	n/a
Loaf of Bred	0.464	0.502	0.536	0.535	0.273	0.210
Wheat Flour	0.290	0.292	0.404	0.400	0.256	0.292
Pasta Soup	0.284	0.246	0.378	0.319	0.292	0.248
Rice	0.182	0.282	0.367	0.293	0.273	0.279
Salt Cakes	0.271	0.282	0.427	0.273	0.274	0.283
Beans	0.227	0.199	0.307	0.301	0.321	0.254
Breakfast Cereal	n/a	n/a	n/a	n/a	n/a	n/a
Chicken	0.230	0.498	0.619	0.530	0.405	0.303
Beef and Pork	0.185	0.196	0.539	0.315	0.291	0.617
Lamb and Goat	0.205	0.423	1.183	1.131	0.672	0.937
Fish	0.350	0.836	0.819	0.974	0.282	0.997
Tinned Fish	0.139	0.228	0.303	0.235	0.252	0.199
Eggs	0.272	0.305	0.777	0.667	0.157	0.332
Milk	0.276	0.312	0.378	0.339	0.186	0.146
Cheese	0.578	0.517	1.073	0.720	0.496	0.684
Lard	0.203	0.288	0.379	0.209	0.225	0.231
Sweets	0.230	0.327	0.557	0.304	0.241	0.222
Carbonated Drinks	0.218	0.294	0.344	0.292	0.175	0.171
Alcoholic Drinks	0.471	0.482	0.499	0.578	n/a	n/a
Coffee	0.519	0.384	0.398	0.467	0.761	0.698
Sugar	0.131	0.177	0.218	0.125	0.195	0.190
Vegetable Oil	0.136	0.209	0.245	0.159	0.265	0.150

Notes: Prices are an unweighted average of reported shop prices in the main shop contacted in each locality, in constant October 2007 prices. Shop prices are not available for the full range of goods.

Table 9.C; Standard Deviation of Log Shop Prices - Colombia

	Standard Deviation of Real Log Shop Price by Time							
Food Type	July - Oct-03	Nov 05- Mar-06	Food Type	July - Oct-03	Nov 05- Mar-06	Food Type	July - Oct-03	Nov 05- Mar-06
Rice	0.102	0.114	Tangarines	1.718	0.546	Yam	0.291	0.359
Bread	0.296	0.425	Banana	0.416	0.289	Yucca	0.355	0.407
Biscuits	0.140	0.627	Melon	0.464	0.636	Other root veg	0.519	0.479
Other bread products	0.941	n/a	Mango	1.506	0.669	Condiments	1.180	0.932
Pasta/Vermicellli	0.792	0.431	Guava	0.653	0.581	Tomato sauce, etc	0.788	n/a
Barley Cereal	0.810	0.280	Blackberry	0.336	0.293	Juice concentrates	0.133	0.134
Malt Soup	0.207	0.222	Passion Fruit	0.728	0.383	Coffee	0.147	0.294
Corn Soup	0.293	0.293	Pineapple	0.333	0.452	Chocolate/Cocoa	0.758	0.348
Wheat Soup	0.196	0.202	Coconut	0.459	0.847	Aromatic herbs	1.116	n/a
Corn flour	0.249	0.272	Other fruit	0.686	0.519	Salt	0.154	0.201
Precooked corn flour	0.150	0.254	Green beans	0.386	0.429	Sugar (refined, brown)	0.107	0.143
Corn	0.419	0.386	Carrots	0.271	0.300	Unprocessed Sugar	0.403	0.468
Wheat Flour	0.134	0.200	Broad beans	0.492	0.376	Vegetable oil	0.265	0.156
Infant Feeding Cereals	2.023	0.607	Tomatoes	0.377	0.325	Vegetable fat	0.278	0.314
Hueso de res	0.389	0.448	Spring Onions	0.452	0.439	Butter	0.332	0.413
Menudencias de pollo	0.418	0.397	Onions	0.369	0.411	Margarine	1.147	0.322
Chicken/hen	0.138	0.210	Cob	1.381	0.564	Lard	0.342	0.408
Beef without bone	0.149	0.138	Green peas	0.415	0.395	Lemonade	0.362	0.249
Beef with bone	0.245	0.246	Lettuce	0.573	0.419	Packaged drinks	1.017	0.722
Mincemeat	0.183	0.149	Kidney beans	0.313	0.343	Powdered cool drinks	0.358	0.244
Pork without bone	0.190	0.263	Spinach	0.768	0.437	Bottled water	1.190	0.735
Pork with bone	0.276	0.289	Beet	0.555	0.495	Eggs	0.133	0.104
Goat/Sheep	0.261	0.184	Cabbage	0.323	0.448	Avena (oats)	n/a	0.403
Other bird meat	0.401	0.376	Garlic	0.441	0.453	Bienestarina	n/a	0.796
Canned meat	1.129	0.713	Aji	0.729	1.007	Liver	n/a	0.234
Cold meats	0.482	0.486	Other green veg	0.478	0.467			
Tongue, feet, etc	0.381	0.432	Chick peas	0.272	0.212			
Fish	0.473	0.469	Dry peas	0.165	0.262			
Seafood	0.638	0.546	Dry beans	0.286	0.311			
Tuna/Sardines	0.338	0.316	Lentils	0.143	0.271			
Milk	0.365	0.287	Other grains	0.430	0.419			
Powdered milk	0.679	0.594	Plantains	0.462	0.495			
Curdled cheese	0.279	0.278	Small plantain	1.187	0.644			
Other dairy products	0.766	1.190	Potatoes	0.280	0.255			
Oranges	0.398	0.398	Creole potatoes	0.338	0.355			
Lemons	0.506	0.241	Arracacha	0.348	0.346			

Table 10.M: Correlation of Shop Prices and Unit Values - Mexico

Correlation Median Unit Value and Shop price							
Food Type	**Oct-98**	**May-99**	**Nov-99**	**Nov-00**	**2003**	**2007**	**ALL**
Tomatoes	0.13	0.10	0.34	-0.04	0.30	0.53	0.49
Onions	0.08	0.05	0.10	0.21	0.09	0.03	0.19
Potatoes	0.34	0.27	0.20	0.30	0.17	0.30	0.26
Carrots	-0.12	0.21	0.27	0.23	0.33	0.45	0.26
Leafy Vegetables	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Oranges	-0.16	0.00	0.03	0.22	0.00	0.09	0.11
Bananas	0.17	0.44	0.18	0.26	0.28	0.24	0.32
Apples	0.10	0.35	0.24	0.06	0.06	-0.43	0.09
Lemons	0.22	-0.06	0.42	-0.14	0.12	0.38	0.17
Pricky pears	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tortilla	0.14	-0.13	0.08	0.36	0.11	0.06	0.19
Maize Grain	n/a	0.21	0.11	0.10	0.06	0.20	0.14
White Bread	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sweet Bread	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loaf of Bread	-0.04	0.05	-0.18	-0.06	0.03	0.02	0.11
Wheat Flour	0.13	0.00	0.06	-0.09	0.02	-0.10	0.02
Pasta Soup	0.18	0.18	0.02	-0.02	0.02	0.13	0.02
Rice	0.02	-0.03	0.05	0.05	0.00	0.06	0.21
Salt Cakes	0.09	0.03	-0.04	0.01	0.12	0.18	0.02
Beans	0.27	0.14	0.18	0.18	0.11	0.20	0.42
Breakfast Cereal	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chicken	0.17	0.61	0.44	0.42	0.64	0.54	0.46
Beef and Pork	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lamb and Goat	-0.25	-0.53	-0.31	-0.43	0.17	-0.17	-0.49
Fish	-0.50	-0.20	-0.01	-0.23	-0.11	0.51	-0.19
Tinned Fish	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Eggs	0.10	-0.01	n/a	0.15	0.22	0.04	0.19
Milk	0.19	0.03	0.08	0.03	0.00	-0.02	0.06
Cheese	0.05	-0.13	0.27	0.14	-0.01	0.03	0.10
Lard	0.09	0.17	0.24	0.42	0.46	0.39	0.44
Sweets	0.10	0.00	-0.03	0.02	-0.05	0.04	0.00
Carbonated Drinks	-0.13	0.07	0.07	-0.04	-0.04	-0.09	0.11
Alcoholic Drinks	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Coffee	0.19	0.02	0.06	0.15	0.09	-0.11	0.21
Sugar	0.08	n/a	n/a	0.14	-0.09	0.21	0.14
Vegetable Oil	0.24	0.32	0.19	0.03	0.11	0.23	0.46

Notes: Prices are an unweighted average of reported shop prices in the main shop contacted in each locality, in constant October 2007 prices. Shop prices are not available for the full range of goods.

Table 10.C: Correlation of Shop Prices and Unit Values - Colombia

Food Type	Oct-03	Mar 06	Food Type	Oct-03	Mar 06	Food Type	Oct-03	Mar 06
Rice	0.59	0.41	Melon	n/a	n/a	Tomato sauce, etc	0.53	n/a
Bread	0.05	0.20	Mango	n/a	n/a	Juice concentrates	0.38	0.16
Biscuits	0.08	0.07	Guava	0.36	0.71	Coffee	0.13	0.09
Other bread products	n/a	n/a	Blackberry	0.19	0.28	Chocolate/Cocoa	0.71	0.63
Pasta/Vermicellli	-0.07	0.44	Passion Fruit	0.69	0.52	Aromatic herbs	n/a	n/a
Barley Cereal	0.62	0.44	Pineapple	n/a	n/a	Salt	0.54	0.56
Malt Soup	-0.25	0.66	Coconut	n/a	n/a	Sugar (refined, brown)	0.34	0.30
Corn Soup	0.64	0.12	Other fruit	0.40	-0.02	Unprocessed Sugar	0.73	0.60
Wheat Soup	0.57	-0.03	Green beans	0.58	0.42	Vegetable oil	0.07	0.32
Corn flour	0.31	0.32	Carrots	0.54	0.23	Vegetable fat	0.05	0.01
Precooked corn flour	0.33	0.15	Broad beans	0.87	0.97	Butter	0.26	-0.03
Corn	0.46	0.22	Tomatoes	0.47	0.39	Margarine	0.66	0.30
Wheat Flour	0.40	0.18	Spring Onions	0.53	0.47	Lard	n/a	n/a
Infant Feeding Cereals	n/a	n/a	Onions	0.40	0.45	Lemonade	-0.19	0.35
Hueso de res	0.70	0.41	Cob	n/a	n/a	Packaged drinks	n/a	n/a
Menudencias de pollo	0.40	0.25	Green peas	0.68	0.69	Powdered cool drinks	0.36	0.05
Chicken/hen	0.69	0.34	Lettuce	0.41	0.46	Bottled water	n/a	n/a
Beef without bone	0.73	0.46	Kidney beans	0.36	0.54	Eggs	0.37	0.08
Beef with bone	0.02	0.12	Spinach	n/a	n/a	Avena (oats)	n/a	0.22
Mincemeat	0.48	0.09	Beet	n/a	n/a	Bienestarina	n/a	-1.00
Pork without bone	0.73	0.70	Cabbage	0.54	0.21	Liver	n/a	0.80
Pork with bone	0.23	0.27	Garlic	0.31	-0.35			
Goat/Sheep	1.00	n/a	Aji	0.56	0.52			
Other bird meat	n/a	n/a	Other green veg	0.35	n/a			
Canned meat	n/a	n/a	Chick peas	0.58	-0.18			
Cold meats	-0.09	-0.28	Dry peas	0.26	0.19			
Tongue, feet, etc	0.39	-0.71	Dry beans	0.56	0.40			
Fish	0.58	0.50	Lentils	0.45	0.35			
Seafood	n/a	n/a	Other grains	0.14	n/a			
Tuna/Sardines	0.37	0.19	Plantains	0.82	0.70			
Milk	0.62	0.28	Small plantain	n/a	n/a			
Powdered milk	-0.11	-0.04	Potatoes	0.66	0.38			
Curdled cheese	0.57	0.43	Creole potatoes	0.60	0.58			
Other dairy products	0.47	0.03	Arracacha	0.28	0.73			
Oranges	0.76	-0.01	Yam	0.75	0.73			
Lemons	0.51	0.05	Yucca	0.69	0.67			
Tangarines	n/a	n/a	Other root veg	0.73	0.99			
Banana	0.45	0.35	Condiments	0.67	0.28			

Table 11.M: Composition of Food Groups - Mexico

Group	Group Name	Foods
1	Rice	Rice
2	Corn	Maize Tortilla, Maize grain, Breakfast cereals
3	Wheat	White bread, sweet bread, loaf of bread, wheat flour, biscuits
4	Pulses	Beans
5	Fruits	Tomatoes, Onions, Carrots, Leafy vegetables, Oranges, Bananas, Apples, Lemons, Prickly pears
6	Animal	Chicken, Beef and pork, Goat and sheep, Fish, Tinned Fish, Eggs, Milk, Cheese, Lard
7	Other foods	Sweets, Carbonated Beverages, Coffee, Sugar, Vegetable Oil
8	Other starches	Potatoes, Pasta Soup

Table 11.C: Composition of Food Groups - Colombia

Group	Group Name	Component Foods
1	Rice	rice
2	Corn	Cuchuco de maiz, Maize flour, Pre-cooked maize flour, maize, infant feeding cereals
3	Wheat and Barley	Bread, Biscuits, Other bread products, pasta or vermicelli, barley cereal, cuchuco de cebada (malt soup), cuchuco de trigo, wheat flour
4	Pulses	chick peas, dry peas, dry beans, lentils, other grains
5	Fruit and Vegetables	oranges, lemons, tangarines, bananas, melons, mangoes, guava, blackberry, passion fruit, pineapple, coconut, other fruits, green beans, carrots, broad beans, tomatoes, spring onions, onions, cob, green peas, lettuce, kidney beans, spinach, beet, cabbage, garlic, aji (?), other green vegetables
6	Animal	cattle head, menudencias de pollo (chicken…), chicken, beef without bone, beef with bone, mincemeat, pork without bone, pork with bone/bone itself, goat or sheep, other bird meat, canned meat, cold meats, tongue/feet etc, fish, seafood, tuna or canned sardines, milk, milk powder, cheese, other dairy products, eggs, liver (wave 3 only)
7	Other starches	plantain, small plantain, potatoes, creolle potatoes, arracacha, yam, yucca, other root vegetables
8	Other foods	condiments, tomato sauce/mayonnaise/mustard/vinegar, juice concentrates, coffee, chocolate/cocoa, aromatic herbs, salt, sugar (refined or brown), unprocessed sugar, vegetable oil, vegetable fat, butter, margarine, lard, lemonade, packaged drinks, powdered cool drinks, bottled water

Table 12.M: Summary Statistics of Group (Stone) Prices - Mexico

Mean Log Price of Detailed Commodity Group

Food Type	Oct-98	May-99	Nov-99	Nov-00	2003	2007
Rice	1.99	2.03	2.01	1.97	1.88	2.17
Corn	0.99	0.97	0.99	0.98	1.53	1.96
Wheat	2.27	2.31	2.32	2.43	2.61	2.95
Pulses	2.42	2.32	2.31	2.21	2.34	2.52
Fruits and Vegetables	1.93	1.65	1.66	1.76	2.02	2.31
Animal Products	2.68	2.73	2.74	2.82	2.92	3.13
Other Foods	2.37	2.29	2.32	2.28	2.31	2.64
Other Starches	2.19	2.15	2.15	2.11	2.35	2.45

Standard Deviation of Log Price of Detailed Commodity Group

Food Type	Oct-98	May-99	Nov-99	Nov-00	2003	2007
Rice	0.094	0.061	0.107	0.075	0.074	0.085
Corn	0.078	0.158	0.197	0.229	0.219	0.179
Wheat	0.272	0.280	0.412	0.397	0.140	0.237
Pulses	0.080	0.039	0.044	0.117	0.073	0.071
Fruits and Vegetables	0.116	0.103	0.139	0.157	0.104	0.138
Animal Products	0.159	0.147	0.147	0.118	0.148	0.212
Other Foods	0.155	0.150	0.154	0.168	0.157	0.292
Other Starches	0.105	0.136	0.141	0.214	0.125	0.123

Notes: Log prices for each commodity group are unweighted averages of lowest-available-area stone prices, where the prices of the sub-component commodities are in constant **nominal** prices. This differs to other tables (where prices are reported in 2007 prices) because the model was estimated using nominal prices (because no normalisation is required when the full price index is being estimated). The stone prices are calculated using plutocratic consumption shares for the sub-component commodities. The lowest available-area is typically the locality but occasionally the municipality or state for commodities rarely consumed.

Table 12.C: Summary Statistics of Group (Stone) Prices - Colombia

Mean Log Price of Detailed Commodity Group				
Food Type	**July-Oct03**	**Nov 05 - Mar 06**	**All**	**% Change 06-03**
Rice	7.31	7.33	7.32	0.02
Corn	7.36	7.41	7.39	0.05
Wheat	6.50	6.65	6.58	0.16
Pulses	7.93	7.96	7.94	0.03
Fruits and Veg	6.82	6.93	6.87	0.10
Animal Products	7.94	8.03	7.98	0.09
Other Foods	7.53	7.56	7.55	0.03
Other Starches	6.24	6.38	6.31	0.15

Std Dev of Log Price of Detailed Commodity Group			
Food Type	**July-Oct03**	**Nov 05 - Mar 06**	**All**
Rice	0.097	0.106	0.102
Corn	0.316	0.307	0.306
Wheat	0.376	0.352	0.374
Pulses	0.145	0.149	0.148
Fruits and Veg	0.235	0.290	0.270
Animal Products	0.207	0.204	0.210
Other Foods	0.275	0.206	0.244
Other Starches	0.307	0.286	0.308

Notes: Log prices for each commodity group are unweighted averages of lowest-available-area stone prices, where the prices of the sub-component commodities are in constant **nominal** prices. This differs to other tables (where prices are reported in 2007 prices) because the model was estimated using nominal prices (because no normalisation is required when the full price index is being estimated). The stone prices are calculated using plutocratic consumption shares for the sub-component commodities. The lowest available-area is typically the municipality but occassionally the state for commodities rarely consumed.

Table 13.M: Summary Statistics of Group Shares - Mexico

Mean Share of Detailed Commodity Group

Food Type	Oct-98	May-99	Nov-99	Nov-00	2003	2007
Rice	2.1	2.1	2.1	2.3	1.8	2.5
Corn	28.0	30.3	25.9	23.5	25.9	28.0
Wheat	2.8	2.9	3.3	2.8	5.2	4.0
Pulses	11.7	10.7	10.5	9.0	7.1	7.2
Fruits and Vegetables	17.9	13.5	15.8	18.7	19.0	18.5
Animal Products	16.5	17.9	19.7	21.8	21.9	21.0
Other Foods	16.7	18.3	18.1	17.4	14.6	13.2
Other Starches	4.4	4.3	4.6	4.5	4.5	5.6

Standard Deviation of Share of Detailed Commodity Group

Food Type	Oct-98	May-99	Nov-99	Nov-00	2003	2007
Rice	3.1	3.1	2.6	2.6	2.8	5.9
Corn	15.5	16.2	13.3	12.9	15.6	20.3
Wheat	4.5	4.9	5.4	4.5	6.8	8.7
Pulses	7.9	7.4	6.8	6.3	5.8	7.9
Fruits and Vegetables	8.4	7.4	7.0	8.0	8.8	15.6
Animal Products	12.6	13.1	13.3	12.8	13.9	16.8
Other Foods	9.4	10.2	9.0	9.4	8.9	13.3
Other Starches	4.6	4.4	4.0	4.2	4.9	9.6

Notes: These are shares of the total food budget. See Table 11.M for the composition of the food groups

Table 13.C: Summary Statistics of Group Shares - Colombia

	Mean Share of Detailed Commodity Group		
Food Type	**Oct-03**	**Mar-06**	**All**
Rice	10.71%	10.49%	10.60%
Corn	3.96%	2.86%	3.40%
Wheat	6.20%	7.93%	7.07%
Pulses	3.89%	3.66%	3.77%
Fruits and Vegetables	14.48%	11.49%	12.97%
Animal Products	31.67%	32.87%	32.28%
Other Foods	18.60%	18.90%	18.75%
Other Starches	10.50%	11.80%	11.15%

	Std Dev of Share of Detailed Commodity Group		
Food Type	**Oct-03**	**Mar-06**	**All**
Rice	8.75%	8.46%	8.61%
Corn	6.69%	4.93%	5.90%
Wheat	7.24%	8.74%	8.09%
Pulses	6.34%	4.75%	5.60%
Fruits and Vegetables	11.98%	8.62%	10.54%
Animal Products	17.41%	15.32%	16.40%
Other Foods	10.96%	9.55%	10.28%
Other Starches	9.14%	9.69%	9.45%

Notes: These are shares of the total food budget. See Table 11.C for the composition of the food groups

Table 14: Income Elasticities (Evaluated at Means)

Food	Mexico	Colombia
Rice	**0.71**	**0.76**
Corn	**0.74**	**1.11**
Wheat	**2.37**	**0.93**
Pulses	**0.51**	**0.46**
Fruit & Veg	**0.98**	**0.94**
Animal Products	**1.66**	**1.57**
Other Foods	**0.59**	**0.84**
Other Starches	**1.31**	**0.11**

Table 14b.M: Income Elasticities (Distribution by Income) - Mexico

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	0.929	0.753	1.657	0.516	0.973	2.148	0.656	1.253
2nd	0.879	0.751	1.822	0.460	0.959	1.935	0.627	1.263
3rd	0.848	0.742	1.861	0.436	0.952	1.767	0.606	1.267
4th	0.819	0.741	1.907	0.446	0.945	1.689	0.583	1.266
5th	0.784	0.740	1.972	0.463	0.940	1.650	0.569	1.271
6th	0.749	0.743	2.017	0.474	0.935	1.600	0.552	1.268
7th	0.707	0.742	2.053	0.489	0.931	1.565	0.539	1.268
8th	0.657	0.741	2.061	0.500	0.926	1.524	0.524	1.269
9th	0.581	0.738	2.074	0.534	0.919	1.486	0.500	1.278
Highest	0.412	0.713	2.112	0.585	0.902	1.422	0.473	1.286

Table 14b.C: Income Elasticities (Distribution by Income) - Colombia

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	0.730	1.127	0.674	0.886	1.054	1.685	0.972	-0.040
2nd	0.724	1.143	0.709	0.770	1.010	1.652	0.930	-0.118
3rd	0.718	1.135	0.769	0.689	0.985	1.623	0.905	-0.117
4th	0.717	1.138	0.822	0.617	0.969	1.597	0.878	-0.064
5th	0.720	1.127	0.868	0.544	0.956	1.575	0.860	-0.092
6th	0.725	1.119	0.919	0.469	0.940	1.560	0.837	-0.079
7th	0.714	1.110	0.961	0.387	0.928	1.552	0.816	-0.060
8th	0.729	1.098	1.006	0.326	0.911	1.541	0.788	-0.092
9th	0.734	1.076	1.068	0.131	0.897	1.522	0.743	-0.112
Highest	0.748	1.041	1.198	0.007	0.861	1.528	0.678	-0.147

Table 15.M: Price Elasticities (Evaluated at Means) - Mexico

Marshallian (Uncompensated) Elasticities

	Rice	Corn	Wheat	Pulses	Fruit&Veg	Animals	Other	Other St
Rice	**-0.680**	0.077	-0.217	0.033	0.098	-0.180	0.198	-0.037
Corn	0.005	**-0.840**	0.066	-0.096	0.107	0.102	-0.128	0.041
Wheat	-0.166	0.050	**-1.014**	-0.258	-0.394	-0.246	-0.536	0.191
Pulses	0.012	-0.200	-0.031	**-0.415**	0.102	-0.346	0.186	0.186
Fruit&Veg	0.009	0.142	-0.050	0.024	**-0.926**	-0.008	-0.181	0.006
Animals	-0.040	-0.124	-0.016	-0.275	-0.101	**-0.753**	-0.223	-0.128
Other	0.028	-0.161	-0.051	0.098	-0.096	-0.051	**-0.413**	0.059
Other St	-0.030	0.080	0.186	0.310	-0.028	-0.484	0.089	**-1.434**

Hicksian (Uncompensated) Elasticities

	Rice	Corn	Wheat	Pulses	Fruit&Veg	Animals	Other	Other St
Rice	**-0.664**	0.276	-0.192	0.102	0.199	-0.035	0.318	-0.004
Corn	0.021	**-0.632**	0.093	-0.023	0.213	0.254	-0.001	0.076
Wheat	-0.115	0.715	**-0.928**	-0.027	-0.055	0.240	-0.132	0.302
Pulses	0.023	-0.059	-0.013	**-0.366**	0.174	-0.243	0.272	0.210
Fruit&Veg	0.030	0.418	-0.014	0.120	**-0.785**	0.193	-0.013	0.052
Animals	-0.004	0.341	0.043	-0.113	0.136	**-0.413**	0.060	-0.050
Other	0.041	0.003	-0.030	0.155	-0.012	0.069	**-0.313**	0.086
Other St	-0.002	0.448	0.233	0.438	0.159	-0.216	0.312	**-1.373**

Notes: Elasticities are evaluated at sample means of prices, incomes and demographic variables. Colours indicate significance. Black is insignificant. Dark Blue is Significant at the 10% level, Mid Blue at the 5% and Cyan at the 1%. Standard errors estimated numerically and clustered at the locality level.

Table 15.C: Price Elasticities (Evaluated at Means) - Colombia

Marshallian (Uncompensated) Elasticities

	Rice	Corn	Wheat	Pulses	Fruit&Veg	Animals	Other	Other St
Rice	**-1.307**	0.171	-0.146	0.811	-0.052	0.138	-0.291	-0.080
Corn	0.495	**-1.096**	0.288	-0.600	0.088	-0.560	-0.065	0.337
Wheat	-0.238	0.145	**-0.835**	0.023	-0.041	-0.467	0.182	0.297
Pulses	2.316	-0.520	0.077	**-2.062**	-0.045	-0.020	-0.122	-0.079
Fruit&Veg	-0.062	0.029	-0.023	-0.032	**-0.789**	-0.089	0.086	-0.063
Animals	-0.041	-0.075	-0.146	-0.043	-0.117	**-0.746**	-0.201	-0.199
Other	-0.174	-0.002	0.075	-0.040	0.073	-0.108	**-0.826**	0.163
Other St	-0.007	0.137	0.245	-0.016	0.035	-0.106	0.414	**-0.814**

Hicksian (Uncompensated) Elasticities

	Rice	Corn	Wheat	Pulses	Fruit&Veg	Animals	Other	Other St
Rice	**-1.226**	0.197	-0.093	0.840	0.046	0.382	-0.149	0.004
Corn	0.613	**-1.058**	0.367	-0.558	0.232	-0.200	0.143	0.461
Wheat	-0.139	0.177	**-0.769**	0.058	0.080	-0.165	0.357	0.401
Pulses	2.364	-0.504	0.109	**-2.045**	0.014	0.127	-0.037	-0.028
Fruit&Veg	0.038	0.061	0.044	0.004	**-0.666**	0.215	0.262	0.042
Animals	0.125	-0.021	-0.035	0.016	0.087	**-0.240**	0.093	-0.024
Other	-0.085	0.026	0.134	-0.008	0.182	0.163	**-0.669**	0.257
Other St	0.005	0.141	0.253	-0.012	0.049	-0.070	0.435	**-0.802**

Notes: Elasticities are evaluated at sample means of prices, incomes and demographic variables. Colours indicate significance. Black is insignificant. Dark Blue is Significant at the 10% level, Mid Blue at the 5% and Cyan at the 1%. Standard errors estimated numerically and clustered at the locality level.

Table 15b.M: Marshallian Own Price Elasticities (Distribution) - Mexico

Variation by Income Decile

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	-0.897	-0.850	-0.994	-0.532	-0.949	-0.723	-0.550	-1.051
2nd	-0.869	-0.845	-0.989	-0.408	-0.942	-0.730	-0.492	-1.057
3rd	-0.856	-0.838	-0.986	-0.333	-0.940	-0.762	-0.451	-1.060
4th	-0.843	-0.836	-0.985	-0.302	-0.937	-0.769	-0.412	-1.062
5th	-0.825	-0.834	-0.984	-0.290	-0.935	-0.770	-0.382	-1.065
6th	-0.810	-0.835	-0.984	-0.250	-0.933	-0.777	-0.349	-1.066
7th	-0.791	-0.833	-0.984	-0.219	-0.933	-0.778	-0.320	-1.068
8th	-0.771	-0.831	-0.983	-0.158	-0.931	-0.781	-0.288	-1.071
9th	-0.737	-0.829	-0.983	-0.118	-0.930	-0.782	-0.239	-1.077
Highest	-0.668	-0.810	-0.986	0.029	-0.923	-0.781	-0.166	-1.087

Variation by Household Type

Household Type	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Male, No Children	-0.814	-0.832	-0.997	-0.295	-0.940	-0.815	-0.421	-1.068
Male, 0-2 Children	-0.801	-0.830	-0.990	-0.264	-0.938	-0.794	-0.387	-1.067
Male, 3+ Children	-0.792	-0.839	-0.978	-0.292	-0.933	-0.748	-0.358	-1.069
Female, No Children	-0.822	-0.830	-1.002	-0.303	-0.942	-0.825	-0.424	-1.064
Female, 0-2 Children	-0.812	-0.833	-0.996	-0.257	-0.940	-0.810	-0.388	-1.067
Female, 3+ Children	-0.804	-0.836	-0.987	-0.280	-0.938	-0.759	-0.356	-1.067
Head Aged 65+	-0.837	-0.825	-0.997	-0.371	-0.938	-0.819	-0.445	-1.062
Large House	-0.774	-0.840	-0.968	-0.277	-0.932	-0.720	-0.310	-1.069
Large House 8+ Children	-0.775	-0.842	-0.958	-0.363	-0.926	-0.673	-0.289	-1.067

Table 15b.C: Marshallian Own Price Elasticities (Distribution) - Colombia

Variation by Income Decile

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	-1.234	-1.064	-0.967	-1.738	-0.769	-0.715	-0.927	-0.860
2nd	-1.262	-1.082	-0.906	-1.888	-0.752	-0.720	-0.892	-0.826
3rd	-1.292	-1.088	-0.873	-1.929	-0.737	-0.738	-0.872	-0.809
4th	-1.315	-1.095	-0.853	-1.971	-0.743	-0.743	-0.852	-0.810
5th	-1.327	-1.095	-0.823	-2.033	-0.751	-0.749	-0.835	-0.792
6th	-1.338	-1.102	-0.811	-2.069	-0.750	-0.757	-0.823	-0.785
7th	-1.372	-1.102	-0.802	-2.122	-0.751	-0.758	-0.805	-0.780
8th	-1.393	-1.107	-0.778	-2.140	-0.752	-0.763	-0.785	-0.762
9th	-1.434	-1.102	-0.744	-2.307	-0.762	-0.771	-0.756	-0.740
Highest	-1.531	-1.098	-0.698	-2.254	-0.742	-0.764	-0.719	-0.699

Variation by Household Type

Household Type	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Male, No Children	-1.317	-1.095	-0.842	-2.197	-0.738	-0.768	-0.856	-0.832
Male, 0-2 Children	-1.359	-1.098	-0.830	-2.087	-0.756	-0.768	-0.838	-0.795
Male, 3+ Children	-1.324	-1.094	-0.813	-2.092	-0.748	-0.739	-0.820	-0.774
Female, No Children	-1.316	-1.113	-0.915	-2.064	-0.785	-0.788	-0.877	-0.841
Female, 0-2 Children	-1.389	-1.091	-0.874	-2.007	-0.774	-0.771	-0.858	-0.822
Female, 3+ Children	-1.347	-1.096	-0.857	-2.001	-0.751	-0.748	-0.837	-0.794
Head Aged 65+	-1.393	-1.077	-0.895	-1.939	-0.794	-0.770	-0.871	-0.858
Large House	-1.253	-1.092	-0.777	-2.146	-0.713	-0.708	-0.800	-0.728
Large House 8+ Children	-1.229	-1.083	-0.774	-2.188	-0.672	-0.678	-0.806	-0.768

Table 15c.M: Hicksian Own Price Elasticities (Distribution) - Mexico

Variation by Income Decile

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	-0.842	-0.613	-0.875	-0.459	-0.794	-0.384	-0.395	-0.964
2nd	-0.831	-0.615	-0.875	-0.360	-0.803	-0.382	-0.365	-0.981
3rd	-0.824	-0.615	-0.872	-0.292	-0.804	-0.391	-0.339	-0.988
4th	-0.814	-0.614	-0.871	-0.263	-0.805	-0.394	-0.312	-0.993
5th	-0.800	-0.612	-0.869	-0.249	-0.806	-0.396	-0.289	-0.999
6th	-0.788	-0.612	-0.867	-0.211	-0.805	-0.395	-0.264	-1.003
7th	-0.772	-0.609	-0.865	-0.181	-0.805	-0.395	-0.241	-1.007
8th	-0.754	-0.605	-0.862	-0.123	-0.806	-0.393	-0.214	-1.013
9th	-0.724	-0.602	-0.859	-0.080	-0.806	-0.390	-0.172	-1.023
Highest	-0.659	-0.595	-0.856	0.063	-0.805	-0.380	-0.107	-1.040

Variation by Household Type

Household Type	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Male, No Children	-0.790	-0.627	-0.888	-0.258	-0.801	-0.420	-0.318	-1.003
Male, 0-2 Children	-0.780	-0.619	-0.877	-0.228	-0.803	-0.404	-0.292	-1.004
Male, 3+ Children	-0.772	-0.602	-0.860	-0.247	-0.806	-0.382	-0.269	-1.008
Female, No Children	-0.797	-0.630	-0.895	-0.270	-0.799	-0.430	-0.322	-0.995
Female, 0-2 Children	-0.788	-0.619	-0.883	-0.222	-0.801	-0.413	-0.294	-1.002
Female, 3+ Children	-0.783	-0.606	-0.869	-0.240	-0.801	-0.389	-0.267	-1.003
Head Aged 65+	-0.808	-0.633	-0.887	-0.327	-0.804	-0.420	-0.332	-0.992
Large House	-0.757	-0.588	-0.847	-0.229	-0.805	-0.367	-0.231	-1.011
Large House 8+ Children	-0.760	-0.576	-0.836	-0.296	-0.808	-0.347	-0.213	-1.007

Table 15c.C: Hicksian Own Price Elasticities (Distribution) - Colombia

Variation by Income Decile

Decile	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Lowest	-1.123	-0.999	-0.880	-1.684	-0.635	-0.195	-0.695	-0.816
2nd	-1.165	-1.034	-0.823	-1.852	-0.638	-0.209	-0.676	-0.799
3rd	-1.208	-1.043	-0.798	-1.893	-0.626	-0.213	-0.669	-0.789
4th	-1.240	-1.054	-0.782	-1.946	-0.632	-0.211	-0.666	-0.787
5th	-1.254	-1.055	-0.754	-2.012	-0.631	-0.208	-0.659	-0.775
6th	-1.268	-1.065	-0.742	-2.060	-0.631	-0.207	-0.655	-0.771
7th	-1.309	-1.065	-0.730	-2.110	-0.630	-0.207	-0.646	-0.763
8th	-1.333	-1.074	-0.708	-2.128	-0.626	-0.199	-0.636	-0.748
9th	-1.381	-1.069	-0.672	-2.304	-0.619	-0.195	-0.626	-0.737
Highest	-1.487	-1.066	-0.609	-2.254	-0.611	-0.175	-0.596	-0.700

Variation by Household Type

Household Type	Rice	Corn	Wheat	Pulses	Fruit & Veg	Meat & Dairy	Other Goods	Other Starches
Male, No Children	-1.241	-1.052	-0.765	-2.173	-0.621	-0.224	-0.658	-0.800
Male, 0-2 Children	-1.295	-1.060	-0.751	-2.069	-0.628	-0.214	-0.655	-0.777
Male, 3+ Children	-1.249	-1.055	-0.735	-2.076	-0.627	-0.197	-0.649	-0.754
Female, No Children	-1.240	-1.077	-0.811	-2.050	-0.651	-0.241	-0.679	-0.824
Female, 0-2 Children	-1.333	-1.048	-0.779	-1.990	-0.642	-0.228	-0.660	-0.809
Female, 3+ Children	-1.280	-1.057	-0.761	-1.981	-0.627	-0.210	-0.654	-0.779
Head Aged 65+	-1.342	-1.029	-0.779	-1.913	-0.635	-0.234	-0.669	-0.797
Large House	-1.151	-1.054	-0.702	-2.137	-0.603	-0.170	-0.639	-0.719
Large House 8+ Children	-1.115	-1.043	-0.702	-2.178	-0.589	-0.154	-0.639	-0.720

Table 16.M: Welfare Impact of Actual 2003-7 Price Rises - Mexico

Percentiles	Pesos per Week	% of Expenditure
No Government		
1%	-85.06	-6.5%
5%	12.87	1.5%
10%	36.53	4.2%
25%	75.39	7.9%
50%	138.01	12.1%
mean	170.84	13.3%
75%	231.61	17.2%
90%	353.34	24.7%
95%	448.98	32.2%
99%	686.55	41.7%
50 Peso Cash Transfer		
1%	-135.06	-15.2%
5%	-37.13	-5.4%
10%	-13.47	-1.8%
25%	25.39	2.7%
50%	88.01	7.5%
mean	120.84	8.5%
75%	181.61	13.0%
90%	303.34	20.5%
95%	398.98	27.7%
99%	636.55	37.0%
5% Price Subsidy		
1%	-164.11	-11.6%
5%	-40.19	-3.7%
10%	-9.71	-0.8%
25%	26.11	2.8%
50%	74.65	7.0%
mean	100.90	8.1%
75%	150.12	12.1%
90%	254.77	19.6%
95%	339.57	27.1%
99%	543.24	36.5%

Table 16.C: Welfare Impact of Actual 2003-7 Price Rises - Colombia

Percentiles	Pesos per Week	% of Expenditure
No Government		
1%	21450	27.2%
5%	34427	28.1%
10%	44324	28.5%
25%	64863	29.2%
50%	96945	30.0%
mean	111817	30.0%
75%	142986	30.7%
90%	201372	31.4%
95%	243869	31.8%
99%	326957	32.6%
50 Peso Cash Transfer		
1%	11450	15.7%
5%	24427	20.9%
10%	34324	22.9%
25%	54863	25.3%
50%	86945	27.2%
mean	101817	26.7%
75%	132986	28.8%
90%	191372	29.9%
95%	233869	30.6%
99%	316957	31.6%
5% Price Subsidy		
1%	16956	22.1%
5%	27448	23.0%
10%	35423	23.4%
25%	52103	24.1%
50%	78290	24.9%
mean	90519	24.8%
75%	115818	25.6%
90%	163838	26.3%
95%	198774	26.7%
99%	267156	27.5%

Table 17.M: Welfare Impact of Actual 2003-7 Price Rises - Mexico

By Region

Region	Pesos per Week	% of Expenditure
No Government Action		
Guerrero	94.19	8.7%
Hildalgo	97.98	7.4%
Michoacan	192.83	12.3%
Puebla	183.82	14.3%
Queretaro	129.61	9.5%
San Luis	191.94	15.1%
Veracruz	217.64	18.0%
50 Peso Cash Transfer		
Guerrero	44.19	2.8%
Hildalgo	47.98	2.5%
Michoacan	142.83	8.1%
Puebla	133.82	9.4%
Queretaro	79.61	4.6%
San Luis	141.94	10.4%
Veracruz	167.64	14.2%
5% Price Subsidy		
Guerrero	33.15	3.6%
Hildalgo	29.62	2.0%
Michoacan	112.63	7.2%
Puebla	115.08	9.2%
Queretaro	59.40	4.4%
San Luis	121.83	10.0%
Veracruz	148.66	12.8%

By Family Type

Family Type	Pesos per Week	% of Expenditure
No Government Action		
1	142.47	13.2%
2	158.36	13.1%
3	183.70	13.5%
4	131.14	12.7%
5	143.60	12.4%
6	163.48	12.9%
7	114.76	12.6%
8	227.66	14.1%
9	238.96	13.8%
50 Peso Cash Transfer		
1	92.47	7.4%
2	108.36	8.1%
3	133.70	9.2%
4	81.14	6.2%
5	93.60	6.9%
6	113.48	8.1%
7	64.76	5.6%
8	177.66	10.4%
9	188.96	10.4%
5% Price Subsidy		
1	83.25	8.1%
2	92.50	7.9%
3	109.26	7.6%
4	74.77	730.0%
5	81.23	7.3%
6	94.54	7.8%
7	65.72	7.5%
8	138.88	9.0%
9	143.56	8.7%

Note: Family types are defined as follows: 1. Household, no children, headed by male; 2. Household, 2 or fewer children, headed by male; 3. Household, 3 or more children, headed by male; 4, 5, 6 - same as 1, 2 and 3 above but headed by female; 7. Pensioner Household (no children) 8. Household has more than 9 members 9. Household has more than 9 members, and number of children is more than 8

Table 17.C: Welfare Impact of Actual 2003-7 Price Rises - Colombia

By State

No Government Action

Region	Pesos per Week	% of Expenditure
Antioquia	105999	29.6%
Arauca	140337	30.9%
Atlantico	96391	29.6%
Bolivar	97583	29.6%
Boyaca	116962	30.1%
Casanare	152479	30.6%
Cauca	127418	30.1%
Cesar	122907	30.0%
Choco	137065	30.3%
Cordoba	114026	30.3%
Cundinamarca	105898	30.0%
Huila	136918	30.5%
La Guajira	133734	30.4%
Magdalena	110980	30.0%
Nariyo	97549	29.8%
Norte De Sant	114505	30.1%
Quindio	67903	29.1%
Risaralda	99922	29.2%
Santander	110900	29.8%
Sucre	106062	30.0%
Tolima	99517	30.0%
Valle	102512	29.8%

10000 Peso Cash Transfer

Region	Pesos per Week	% of Expenditure
Antioquia	95999	26.1%
Arauca	130337	28.2%
Atlantico	86391	26.2%
Bolivar	87583	26.1%
Boyaca	106962	26.8%
Casanare	142479	27.9%
Cauca	117418	27.2%
Cesar	112907	27.0%
Choco	127065	27.5%
Cordoba	104026	27.2%
Cundinamarca	95898	26.3%
Huila	126918	27.9%
La Guajira	123734	27.8%
Magdalena	100980	26.9%
Nariyo	87549	26.0%
Norte De Sant	104505	26.7%
Quindio	57903	24.1%
Risaralda	89922	25.6%
Santander	100900	26.3%
Sucre	96062	26.7%
Tolima	89517	26.5%
Valle	92512	26.2%

5% Price Subsidy

Region	Pesos per Week	% of Expenditure
Antioquia	85638	24.5%
Arauca	114321	25.8%
Atlantico	77752	24.5%
Bolivar	78767	24.5%
Boyaca	94776	24.9%
Casanare	124010	25.5%
Cauca	103215	25.0%
Cesar	99479	24.9%
Choco	111158	25.1%
Cordoba	92471	25.2%
Cundinamarca	85776	24.9%
Huila	111134	25.4%
La Guajira	108493	25.3%
Magdalena	89814	24.9%
Nariyo	78884	24.7%
Norte De Sant	92843	25.0%
Quindio	54609	24.0%
Risaralda	80544	24.1%
Santander	89765	24.7%
Sucre	85853	24.9%
Tolima	80543	24.9%
Valle	82911	24.7%

By Family Type

Family Type	Pesos per Week	% of Expenditure
1	89893	30.0%
2	106224	30.1%
3	117836	29.9%
4	76177	30.2%
5	93937	30.4%
6	106481	30.1%
7	83508	29.8%
8	135738	29.3%
9	143807	29.2%

Family Type	Pesos per Week	% of Expenditure
1	79893	26.2%
2	96224	26.7%
3	107836	26.8%
4	66177	25.3%
5	83937	26.2%
6	96481	26.7%
7	73508	25.3%
8	125738	26.8%
9	133807	26.6%

Family Type	Pesos per Week	% of Expenditure
1	72763	24.9%
2	86078	25.0%
3	95350	24.8%
4	61799	25.1%
5	76282	25.2%
6	86299	25.0%
7	67535	24.7%
8	109388	24.2%
9	115761	24.0%

Note: Family types are defined as follows: 1. Household, no children, headed by male; 2. Household, 2 or fewer children, headed by male; 3. Household, 3 or more children, headed by male; 4, 5, 6 - same as 1, 2 and 3 above but headed by female; 7. Pensioner Household (no children) 8. Household has more than 9 members 9. Household has more than 9 members, and number of children is more than 8

Table 18.M: Impact on Budget Shares of Actual 2003-7 Price Rises - Mexico

	Initial Share	New Share	Change
No Government Action			
Rice	2.16%	2.29%	0.13%
Corn	27.95%	29.20%	1.25%
Wheat	3.60%	3.02%	-0.58%
Pulses	9.77%	9.49%	-0.28%
Fruit and Veg	14.31%	14.43%	0.12%
Meat and Dairy	20.48%	18.91%	-1.57%
Other Foods	17.04%	17.57%	0.53%
Other Starches	4.69%	5.09%	0.40%
5% Price Subsidy			
Rice	2.16%	2.26%	0.10%
Corn	27.95%	28.83%	0.88%
Wheat	3.60%	3.26%	-0.34%
Pulses	9.77%	9.22%	-0.55%
Fruit and Veg	14.31%	14.42%	0.11%
Meat and Dairy	20.48%	19.64%	-0.84%
Other Foods	17.04%	17.20%	0.16%
Other Starches	4.69%	5.17%	0.48%
50 Peso Transfer			
Rice	2.16%	2.25%	0.09%
Corn	27.95%	28.83%	0.88%
Wheat	3.60%	3.28%	-0.32%
Pulses	9.77%	9.27%	-0.50%
Fruit and Veg	14.31%	14.41%	0.10%
Meat and Dairy	20.48%	19.58%	-0.90%
Other Foods	17.04%	17.22%	0.18%
Other Starches	4.69%	5.16%	0.47%

Table 18.C: Impact on Budget Shares of Actual 2003-7 Price Rises - Colombia

	Initial Share	New Share	Change
No Government Action			
Rice	10.61%	9.71%	-0.90%
Corn	3.39%	3.59%	0.20%
Wheat	7.06%	7.08%	0.02%
Pulses	3.77%	4.46%	0.69%
Fruit and Veg	12.97%	13.47%	0.50%
Meat and Dairy	32.29%	27.31%	-4.98%
Other Foods	18.77%	20.27%	1.50%
Other Starches	11.14%	14.11%	2.97%
5% Price Subsidy			
Rice	10.61%	9.56%	-1.05%
Corn	3.39%	3.61%	0.22%
Wheat	7.06%	7.02%	-0.04%
Pulses	3.77%	4.38%	0.61%
Fruit and Veg	12.97%	13.45%	0.48%
Meat and Dairy	32.29%	28.25%	-4.04%
Other Foods	18.77%	20.15%	1.38%
Other Starches	11.14%	13.58%	2.44%
10000 Peso Transfer			
Rice	10.61%	9.97%	-0.64%
Corn	3.39%	3.52%	0.13%
Wheat	7.06%	7.59%	0.53%
Pulses	3.77%	4.05%	0.28%
Fruit and Veg	12.97%	13.13%	0.16%
Meat and Dairy	32.29%	28.04%	-4.25%
Other Foods	18.77%	19.60%	0.83%
Other Starches	11.14%	14.10%	2.96%

Table 19.M: Welfare Impact of 50% Rise in Rice, Corn and Wheat - Mexico

Percentiles	Pesos per Week	% of Expenditure
No Government Action		
1%	47.47	11.4%
5%	67.95	12.1%
10%	84.04	12.6%
25%	117.70	13.4%
50%	167.11	14.3%
mean	187.11	14.3%
75%	233.60	15.2%
90%	315.62	16.0%
95%	376.02	16.5%
99%	510.35	17.5%
50 Peso Cash Transfer		
1%	-2.53	-0.8%
5%	17.95	3.9%
10%	34.04	5.9%
25%	67.70	8.2%
50%	117.11	10.0%
mean	137.11	9.5%
75%	183.60	11.5%
90%	265.62	12.6%
95%	326.02	13.2%
99%	460.35	14.2%
5% Price Subsidy		
1%	40.92	9.9%
5%	58.57	10.5%
10%	72.44	10.9%
25%	101.44	11.6%
50%	144.02	12.4%
mean	161.25	12.4%
75%	201.33	13.2%
90%	271.97	13.9%
95%	324.03	14.4%
99%	439.79	15.2%

Table 19.C: Welfare Impact of 50% Rise in Rice, Corn and Wheat - Colombia

Percentiles	Pesos per Week	% of Expenditure
No Government Action		
1%	7577	6.3%
5%	10471	7.0%
10%	12718	7.3%
25%	17333	7.9%
50%	24170	8.6%
mean	27457	8.6%
75%	34016	9.3%
90%	46862	10.0%
95%	56289	10.4%
99%	73986	11.5%
50 Peso Cash Transfer		
1%	-2423	-3.7%
5%	471	0.4%
10%	2718	2.0%
25%	7333	3.7%
50%	14170	4.9%
mean	17457	4.6%
75%	24016	5.9%
90%	36862	6.8%
95%	46289	7.4%
99%	63986	8.3%
5% Price Subsidy		
1%	6613	5.5%
5%	9126	6.1%
10%	11081	6.4%
25%	15093	6.9%
50%	21023	7.5%
mean	23873	7.5%
75%	29570	8.1%
90%	40708	8.7%
95%	48886	9.1%
99%	64182	10.1%

Table 20.M: Welfare Impact of 50% Price Rise in Rice, Corn and Wheat - Mexico

By Region

Region	Pesos per Week	% of Expenditure
No Government Action		
Guerrero	181.60	15.2%
Hildalgo	191.44	14.2%
Michoacan	218.57	14.4%
Puebla	177.96	13.9%
Queretaro	195.33	14.3%
San Luis	181.11	14.0%
Veracruz	177.46	14.3%
50 Peso Cash Transfer		
Guerrero	131.60	9.7%
Hildalgo	141.44	9.6%
Michoacan	168.57	10.3%
Puebla	127.96	9.0%
Queretaro	145.33	9.7%
San Luis	131.11	9.3%
Veracruz	127.46	9.3%
5% Price Subsidy		
Guerrero	156.45	13.2%
Hildalgo	164.99	12.4%
Michoacan	188.35	12.6%
Puebla	153.38	12.1%
Queretaro	168.33	12.5%
San Luis	156.09	12.2%
Veracruz	152.93	12.4%

By Family Type

Family Type	Pesos per Week	% of Expenditure
No Government Action		
1	143.43	13.2%
2	168.82	13.8%
3	204.46	14.7%
4	133.89	13.0%
5	157.92	13.7%
6	189.41	14.7%
7	118.53	13.1%
8	255.55	15.5%
9	287.63	16.1%
50 Peso Cash Transfer		
1	93.43	7.3%
2	118.82	8.9%
3	154.46	10.5%
4	83.89	6.4%
5	107.92	8.2%
6	139.41	9.9%
7	68.53	6.0%
8	205.55	11.8%
9	237.63	12.8%
5% Price Subsidy		
1	123.67	11.5%
2	145.52	12.0%
3	176.19	12.8%
4	115.45	11.3%
5	136.13	11.9%
6	163.52	12.8%
7	102.20	11.4%
8	220.14	13.5%
9	247.71	14.0%

Table 20.C: Welfare Impact of 50% Rise in Price of Rice, Corn and Wheat - Colombia

No Government Action

By State

Region	Pesos per Week	% of Expenditure
Antioquia	26217	8.5%
Arauca	29907	7.7%
Atlantico	26441	9.2%
Bolivar	26391	9.2%
Boyaca	28801	8.7%
Casanare	33728	8.0%
Cauca	30260	8.4%
Cesar	30820	8.7%
Choco	31558	8.2%
Cordoba	27698	8.6%
Cundinamarca	26927	9.0%
Huila	29331	7.6%
La Guajira	36201	9.3%
Magdalena	27754	8.7%
Nariyo	22823	8.4%
Norte De Sant	26595	8.2%
Quindio	17687	8.8%
Risaralda	20916	7.2%
Santander	28380	9.0%
Sucre	27264	8.9%
Tolima	23271	8.2%
Valle	24519	8.4%

By Family Type

Family Type	Pesos per Week	% of Expenditure
1	20454	8.1%
2	24211	8.1%
3	29166	8.7%
4	17950	8.5%
5	22187	8.6%
6	27250	9.0%
7	19396	8.3%
8	38444	9.5%
9	42667	9.9%

10000 Peso Cash Transfer

By State

Region	Pesos per Week	% of Expenditure
Antioquia	16217	4.2%
Arauca	19907	4.3%
Atlantico	16441	5.1%
Bolivar	16391	4.9%
Boyaca	18801	4.7%
Casanare	23728	4.5%
Cauca	20260	4.8%
Cesar	20820	5.0%
Choco	21558	4.8%
Cordoba	17698	4.7%
Cundinamarca	16927	4.6%
Huila	19331	4.4%
La Guajira	26201	6.1%
Magdalena	17754	4.8%
Nariyo	12823	3.7%
Norte De Sant	16595	4.1%
Quindio	7687	2.7%
Risaralda	10916	2.7%
Santander	18380	4.6%
Sucre	17264	4.8%
Tolima	13271	3.8%
Valle	14519	4.0%

By Family Type

Family Type	Pesos per Week	% of Expenditure
1	10454	3.4%
2	14211	3.9%
3	19166	4.9%
4	7950	2.3%
5	12187	3.4%
6	17250	4.8%
7	9396	2.6%
8	28444	6.5%
9	32667	6.8%

5% Price Subsidy

By State

Region	Pesos per Week	% of Expenditure
Antioquia	22811	7.4%
Arauca	26017	6.7%
Atlantico	22969	8.1%
Bolivar	22943	8.1%
Boyaca	25023	7.6%
Casanare	29332	7.0%
Cauca	26315	7.3%
Cesar	26793	7.6%
Choco	27459	7.2%
Cordoba	24085	7.5%
Cundinamarca	23389	7.9%
Huila	25519	6.7%
La Guajira	31448	8.2%
Magdalena	24140	7.6%
Nariyo	19844	7.4%
Norte De Sant	23125	7.2%
Quindio	15394	7.7%
Risaralda	18238	6.3%
Santander	24657	7.9%
Sucre	23694	7.8%
Tolima	20241	7.2%
Valle	21331	7.3%

By Family Type

Family Type	Pesos per Week	% of Expenditure
1	17803	7.1%
2	21062	7.1%
3	25355	7.6%
4	15268	7.4%
5	19304	7.5%
6	13691	7.9%
7	16885	7.3%
8	33385	8.3%
9	37042	8.7%

Table 21.M: Impact on Budget Shares of 50% Rise in Rice, Corn and Wheat Prices - Mexico

	Initial Share	New Share	Change
No Government Action			
Rice	2.16%	2.31%	0.15%
Corn	27.95%	30.60%	2.65%
Wheat	3.60%	3.41%	-0.19%
Pulses	9.77%	8.97%	-0.80%
Fruit and Veg	14.31%	14.88%	0.57%
Meat and Dairy	20.48%	18.88%	-1.60%
Other Foods	17.04%	15.81%	-1.23%
Other Starches	4.69%	5.14%	0.45%
50 Peso Transfer			
Rice	2.16%	2.28%	0.12%
Corn	27.95%	30.23%	2.28%
Wheat	3.60%	3.68%	0.08%
Pulses	9.77%	8.74%	-1.03%
Fruit and Veg	14.31%	14.87%	0.56%
Meat and Dairy	20.48%	19.55%	-0.93%
Other Foods	17.04%	15.46%	-1.58%
Other Starches	4.69%	5.19%	0.50%
5% Price Subsidy			
Rice	2.16%	2.29%	0.13%
Corn	27.95%	30.27%	2.32%
Wheat	3.60%	3.44%	-0.16%
Pulses	9.77%	9.06%	-0.71%
Fruit and Veg	14.31%	14.81%	0.50%
Meat and Dairy	20.48%	19.09%	-1.39%
Other Foods	17.04%	15.96%	-1.08%
Other Starches	4.69%	5.08%	0.39%

Table 21.C: Impact on Budget Shares of 50% Rise in Rice, Corn and Wheat Prices - Colombia

	Initial Share	New Share	Change
No Government Action			
Rice	10.61%	9.29%	-1.32%
Corn	3.39%	4.35%	0.96%
Wheat	7.06%	7.13%	0.07%
Pulses	3.77%	6.72%	2.95%
Fruit and Veg	12.97%	12.76%	-0.21%
Meat and Dairy	32.29%	28.79%	-3.50%
Other Foods	18.77%	18.14%	-0.63%
Other Starches	11.14%	12.82%	1.68%
10000 Peso Transfer			
Rice	10.61%	9.55%	-1.06%
Corn	3.39%	4.29%	0.90%
Wheat	7.06%	7.63%	0.57%
Pulses	3.77%	6.32%	2.55%
Fruit and Veg	12.97%	12.43%	-0.54%
Meat and Dairy	32.29%	29.52%	-2.77%
Other Foods	18.77%	17.47%	-1.30%
Other Starches	11.14%	12.79%	1.65%
5% Price Subsidy			
Rice	10.61%	9.46%	-1.15%
Corn	3.39%	4.23%	0.84%
Wheat	7.06%	7.12%	0.06%
Pulses	3.77%	6.34%	2.57%
Fruit and Veg	12.97%	12.79%	-0.18%
Meat and Dairy	32.29%	29.24%	-3.05%
Other Foods	18.77%	18.21%	-0.56%
Other Starches	11.14%	12.61%	1.47%

Figure 5.M Engel Curves-Mexico

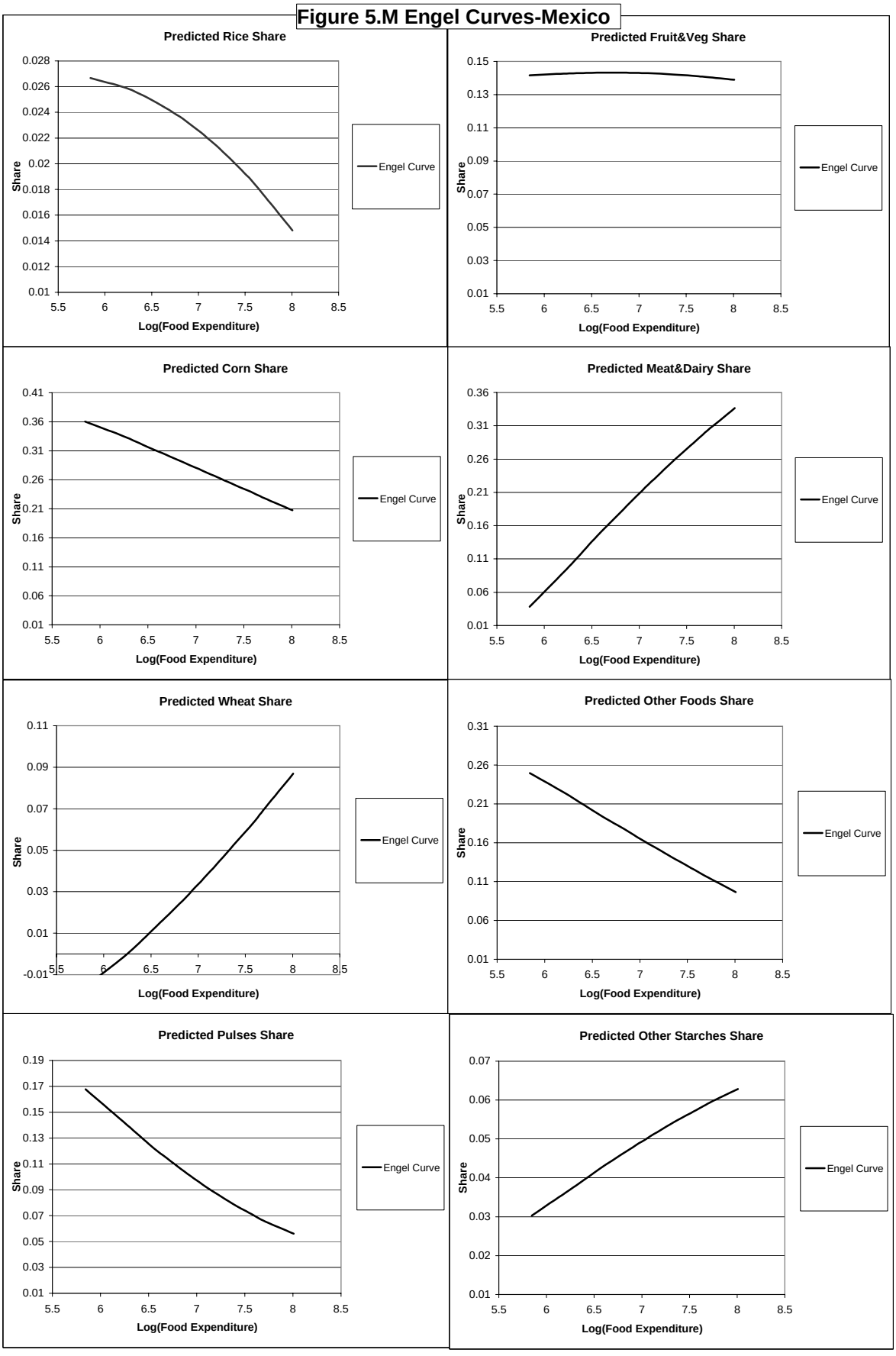


Figure 5.C Engel Curves - Colombia

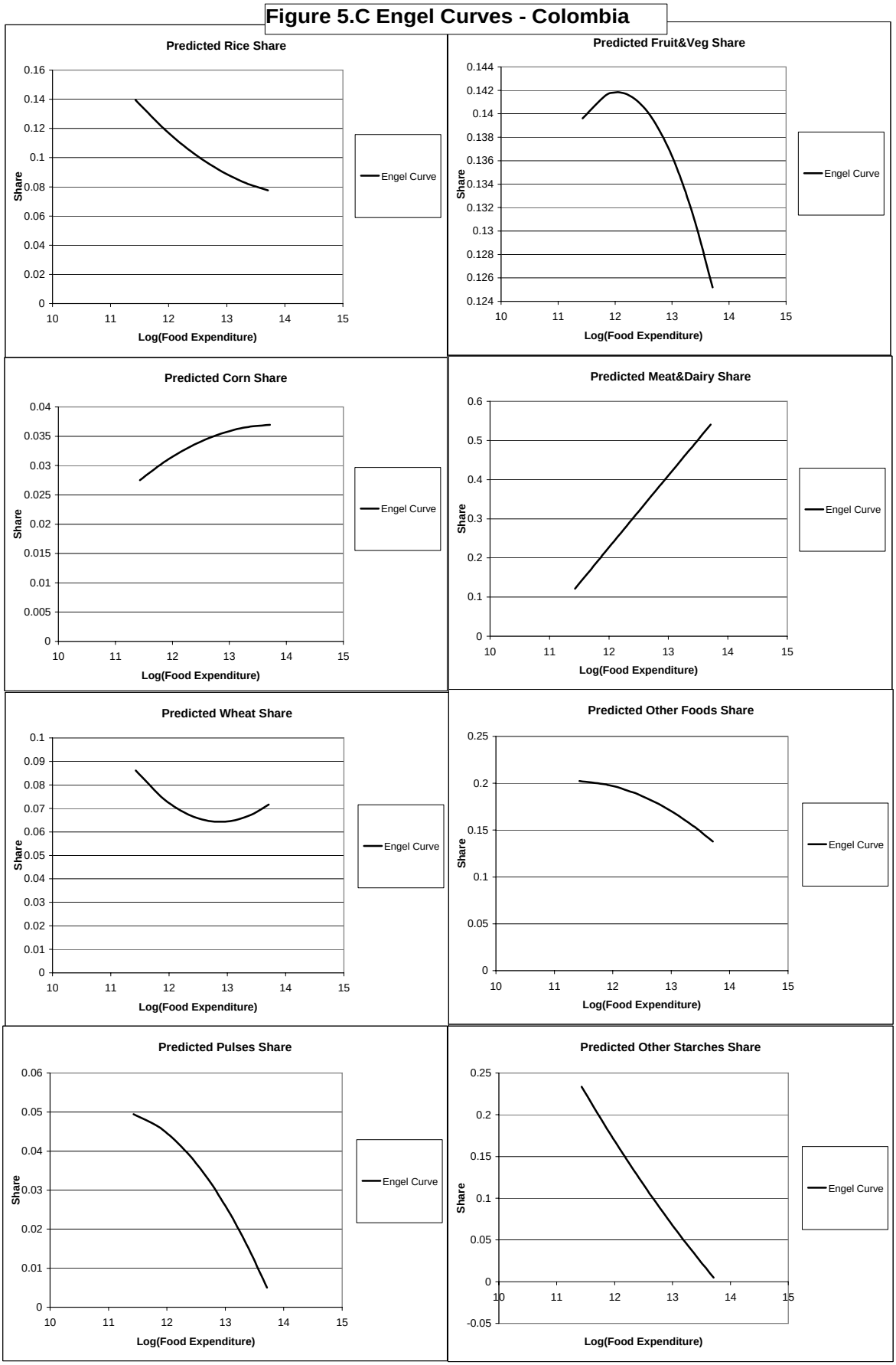


Figure 6.M Mexico – Actual vs. Predicted Share

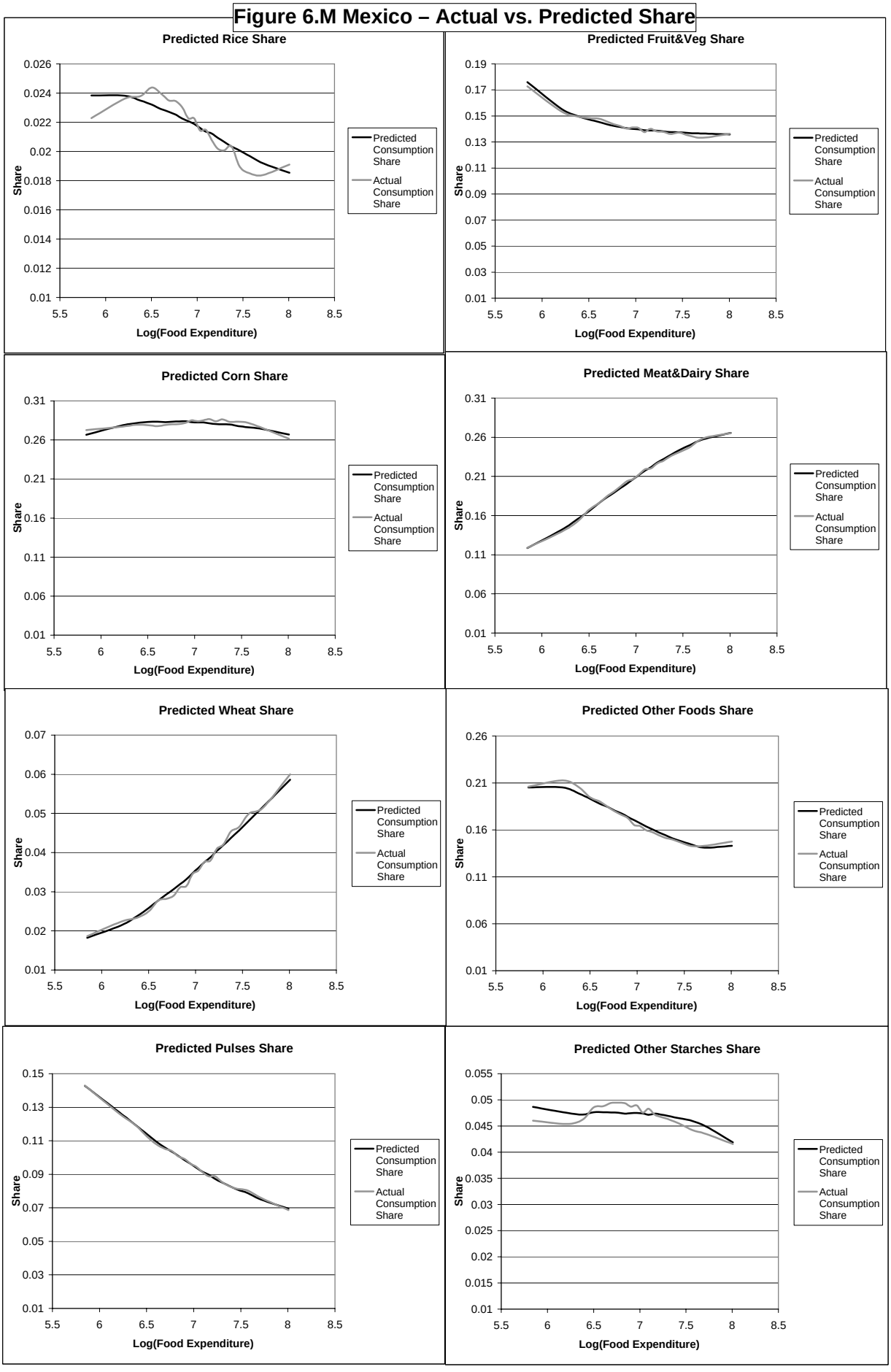


Figure 6.C Colombia – Actual vs. Predicted Shares

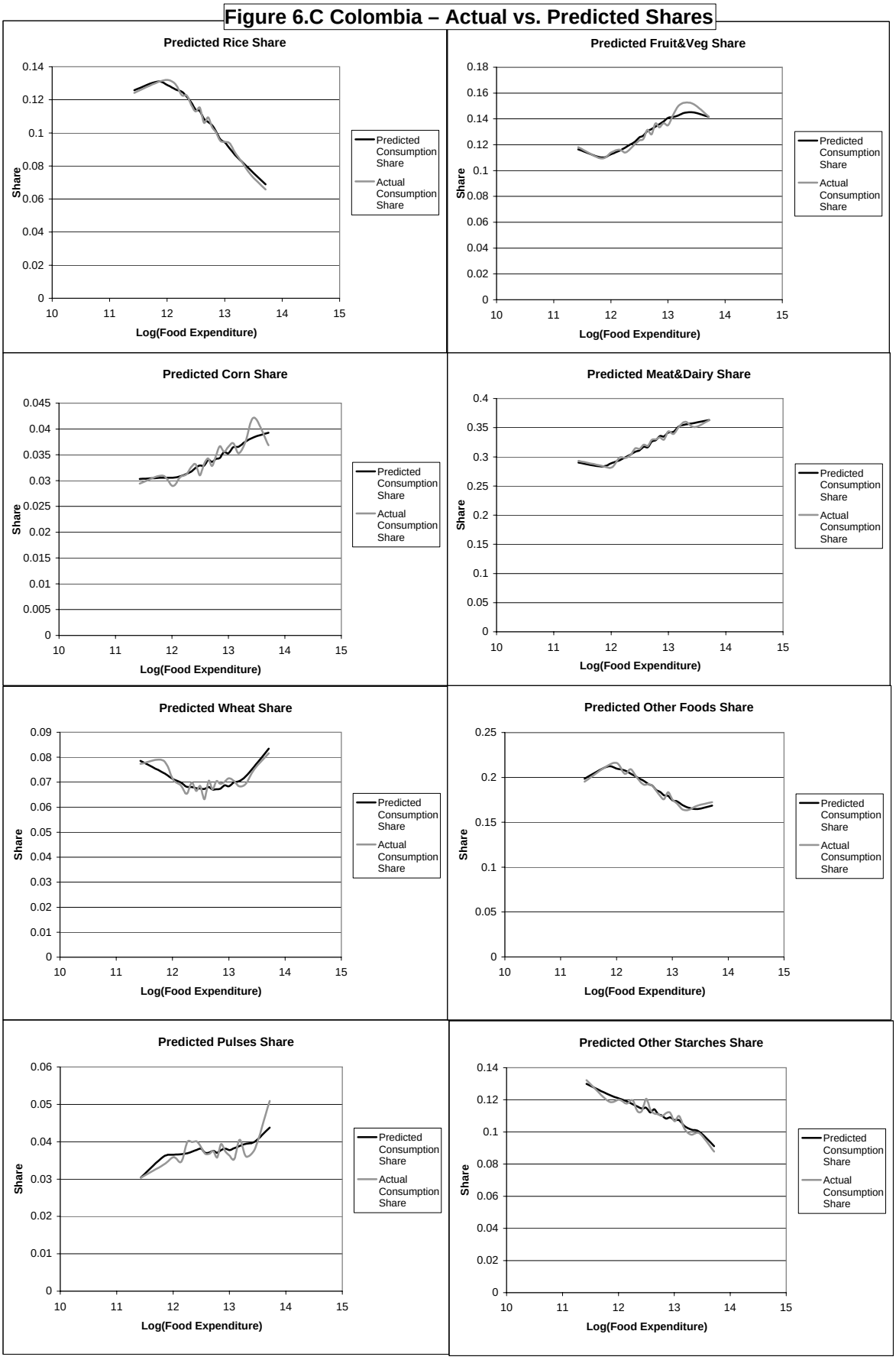
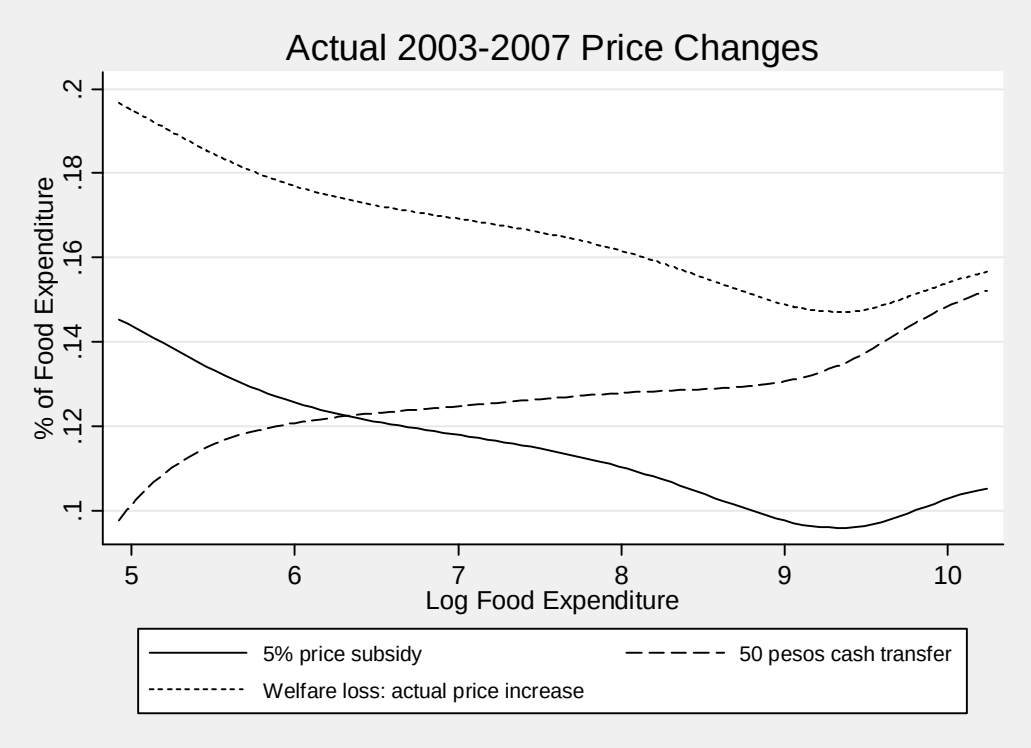
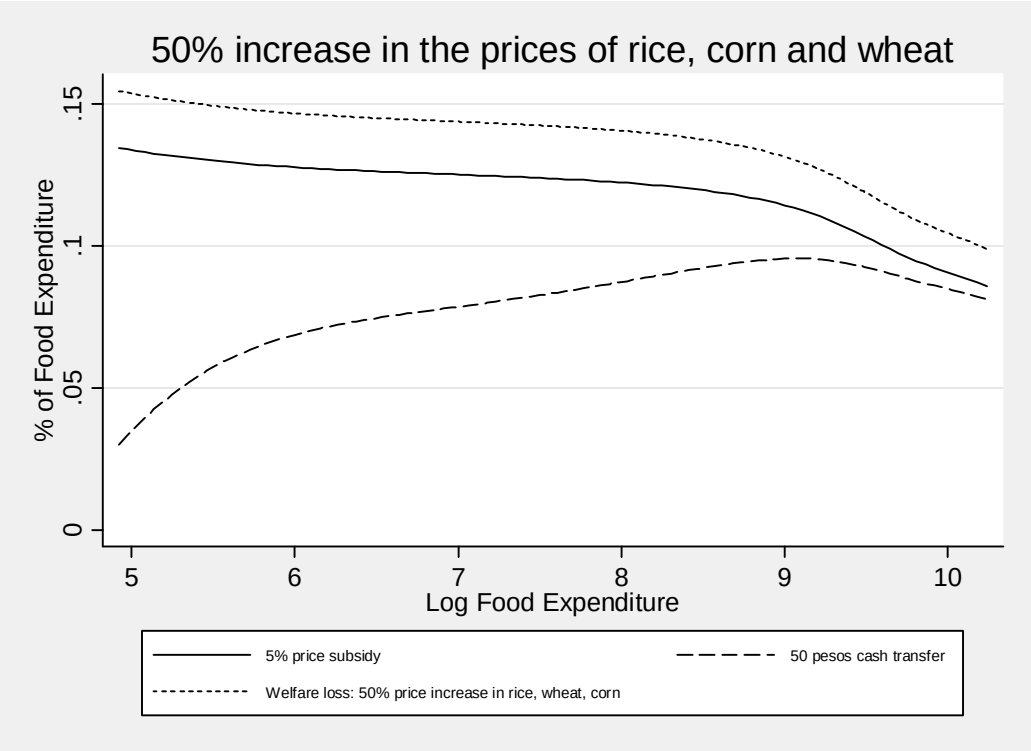


Figure 7.M – Mexico
Welfare impacts of actual 2003-2007 price increases and policy changes



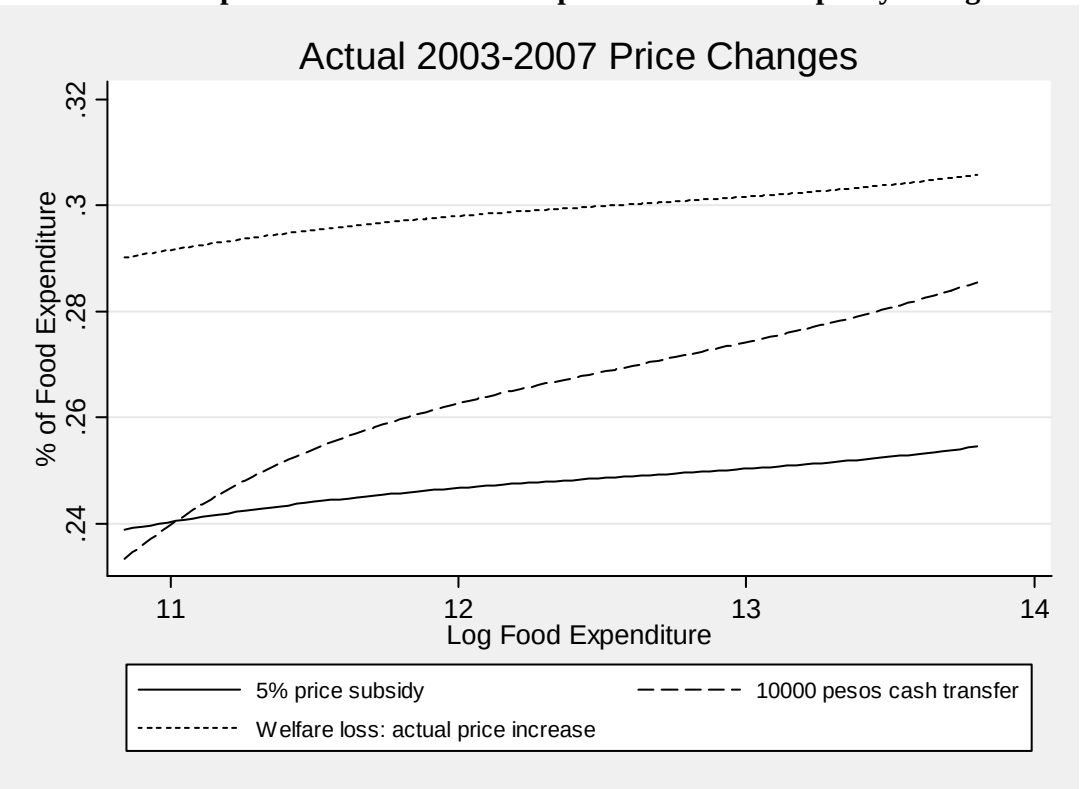
Notes: Curves are generated with a kernel-weighted local mean smoother, using a bandwidth of 0.8 and 100 grid points.

Figure 8.M – Mexico
Welfare impacts of 50% increase in the prices of rice, corn and wheat and policy changes



Notes: Curves are generated with a kernel-weighted local mean smoother, using a bandwidth of 0.8 and 100 grid points.

Figure 7.C – Colombia
Welfare impacts of actual 2003-2007 price increases and policy changes



Curves are generated with a kernel-weighted local mean smoother, with a bandwidth of 0.8 and 100 grid points.

Figure 8.C – Colombia
Welfare impacts of 50% increase in the prices of rice, corn and wheat