

Introduction

The Rural Industries Research and Development Corporation (RIRDC) released the report: *How price affects demand for food in Australia: an analysis of domestic demand elasticities for rural marketing and policy* on the 24th of October 2011.

The report outlines how:

- a change in (retail) price for one good;
 - affects the demand for that good;
 - affects the demand for other goods (commodities);
- how a person's income (or expenditure) affects demand for a good, and;
- how these figures vary between Australia and other developed nations

Table 1 gives a good outline of how the demand for each product is affected by its own price and the price of other products, as well as the affect income has on demand for each individual good.

Key findings

Table 1 provides a summary of the product elasticities.

Graphical Analysis

Figure 1 and 2 graphically represent the income and expenditure elasticities respectively for the nominated food groups within the study. Figure 3 contrasts the two elasticities. It can be seen from the graphs that staples, such as bread and milk, have much lower elasticities, whereas, more luxury goods such as lamb, pork, beef, preserved fruits etc, have much higher elasticities and are more sensitive to price (and income) changes. Rice has such high elasticities due to its ability to be easily substituted for other carbohydrate sources (such as pasta and bread) when its price increases.

International Comparisons

These figures differ on few key areas when contrasted to international studies. Namely:

- A Canadian study found significantly lower elasticity of demand for beef, poultry and pork. Meaning Australian households are more sensitive to main meat price fluctuations than Canadians
- There was also a notably but not exorbitantly lower elasticity demand for fruit within the US and Canadian studies
- The Japanese followed similar patterns to the US and Canadian studies, although the Japanese demonstrated a lower expenditure elasticity of demand for main meats. Outlining that the Japanese are less responsive in terms of how much pork, beef and poultry they purchase as a result of a price or income change in comparison to Australians. This can be mainly attributed to dietary and cultural differences

Implications for policy

This report correlates with economic theory and gives a valuable insight in consumer preferences. These figures give strong foundations to examine the implications of a policy that may increase or decrease the retail price of a given commodity. For example, if milk prices were to increase by 1%, the information provided in the report allows us to understand that this would have no significant affect on demand for milk, although it would (slightly) negatively affect demand for rice, lamb, pork, other meat, fresh fruit, fresh vegetables, preserved fruit, preserved vegetables, sugar and jam and margarine, whilst positively influencing demand for bread and poultry products.

Table 1: A basic summary product elasticities

Product	1% price rise – affect on demand	Product's demand negatively affected by price rise	Product's demand positively affected by price rise	Change in quantity purchased after a 1% rise in income
Milk	Not significant	Rice, lamb, pork, other meat, fresh fruit, fresh vegetables, preserved fruit, preserved vegetables, sugar and jam, margarine	Bread, poultry	0.37%
Dairy products	-1%	Beef and veal, poultry, preserved vegetables	-	1%
Bread	-0.70%	Mutton and lamb, pork, poultry, fresh fruit and vegetables, preserved fruit, sugar and margarine	Milk	1.50%
Rice	-2.60%	-	Bread, mutton and lamb, other meat, fresh fruit	2.00%
Beef and veal	-1.40%	-	Pork, poultry, fresh fruit	1.60%
Mutton and lamb	-1.40%	Bread	Dairy products, rice, pork, fresh fruit, fresh vegetables, preserved fruit, margarine	1.60%
Pork	-2.20%	-	Dairy products, Beef and veal, preserved fruits, margarine	1.60%
Other meat	-0.80%	-	Bread, rice	1.30%
Poultry	-1.40%	Dairy products	Milk, fresh fruit, preserved fruit, sugar and jam, margarine	1.40%
Fresh fruits	-1%	Milk, bread, fresh vegetables, preserved fruits, sugar and jam	Beef and veal,	0.80%
Fresh vegetables	-0.50%	Milk, bread, rice, mutton and lamb, other meat, fresh fruit, preserved vegetable, sugar and jam, margarine	-	0.90%
Preserved fruits	Not significant	Milk,	Fresh vegetables	1.50%
Preserved vegetables	-1.40%	Beef and veal	Bread, fresh fruit, margarine	1.20%
Sugar and jam	1%	Milk, bread	-	1.20%
Margarine	-1.70%	Milk, bread, fresh fruit, fresh vegetables	Dairy products, pork and poultry	0.90%

Figure 1: Australian expenditure elasticities

Expenditure elasticity (% change in demand for a good as a result of a 1% increase in household expenditure)

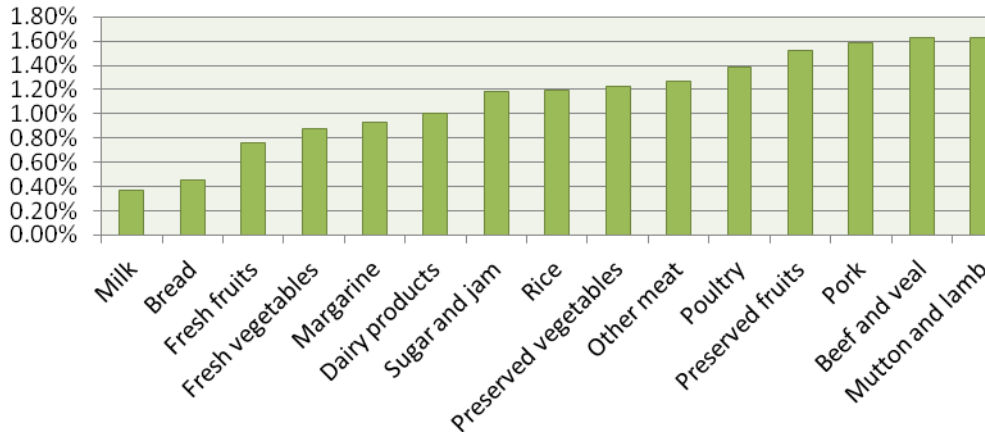
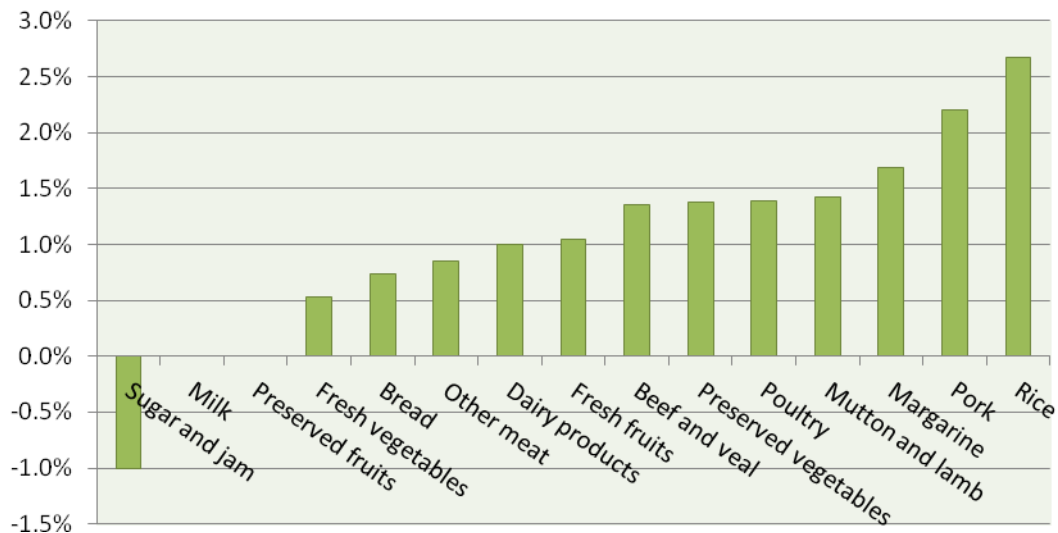


Figure 2: Australian own-price elasticities

Own price elasticity of demand (decrease in demand as a result of a 1% increase in price)



A comparison of elasticities

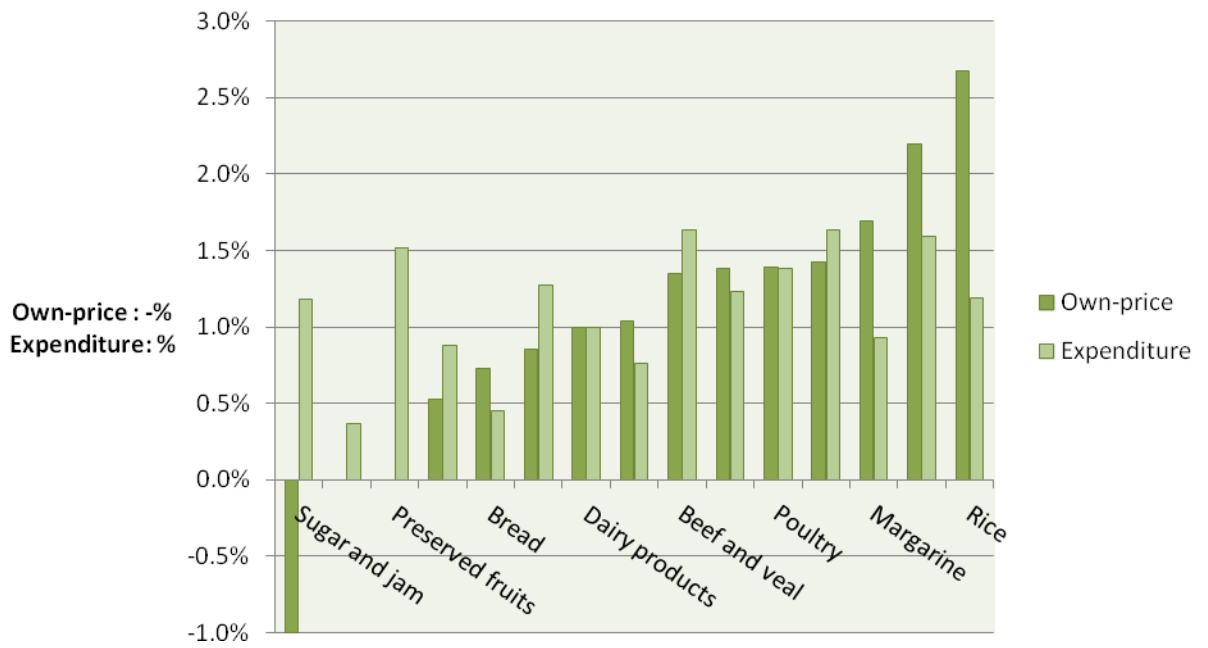


Figure 3: Expenditure and income elasticities