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**Analysis of Price and Product Competition from Imports
in the Preserved Mushrooms Market in Australia**

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Abstract

The Australian preserved mushrooms industry is one of a number of industries in the horticultural sector that is under threat from cheaper imported products. The Australian Customs Service is currently investigating the alleged dumping of Chinese imported cans of preserved mushrooms that feature prominently on supermarket shelves. Evidence exists that cheaper imported Chinese products have incurred injury in the Australian market. These Chinese imports have penetrated the Australian preserved mushroom industry and compete intensely on price, although the one remaining domestic producer in the Australian market claims stronger brand loyalty. However, it is possible that concentration on price competition might lead to a neglect of more damaging long-term product competition from these imports. We highlight the nature and extent of this competition by identifying demand, price and expenditure relationships between local and imported preserved mushrooms.

Of four propositions tested in the analysis, two were supported but results of the other two tests were contrary to expectations. It was expected that the Australian producer competed more on brand recognition than price but evidence suggests otherwise. Also, it was expected that consumers would prefer a domestic 'lite' product over other domestic products with greater health-consciousness among consumers as incomes increase. Yet, while this product has the highest expenditure elasticity of demand among domestic products, it did not command a significantly higher proportion of sales with an increase in the budget for preserved mushrooms. On the other hand, the proposition was tested that consumers show greater preference for products in brine with an increase in the budget for preserved mushrooms on the premise that these products are more versatile and attractive to a younger and richer cohort of shoppers buying the products. Evidence supports this proposition and thus an advantage lies with the Chinese producers who supply mushrooms using the brine-preserving medium. Finally, significant and positive cross-price elasticities of demand were confirmed between domestic and imported brands, suggesting that Chinese imports do compete with domestic products on price.

Introduction

The objective of this study is to analyse the nature and extent of competition from Chinese imports in the Australian preserved mushrooms market. This issue is of particular interest given the recent media exposure publicising the penetration of imported products, particularly fruit and vegetables (fresh and preserved), in Australian supermarkets.

Relationships between the prices and quantities of local and imported preserved mushrooms are identified and modelled using three-stage least squares regression analysis to identify the own-price, cross-price and expenditure elasticities of demand for four domestic brands and four imported brands of preserved mushrooms. These estimates enable inferences to be made regarding brand loyalty, price sensitivity and product substitutability.

Background

Until recently, output in the mushroom industry had been growing rapidly and mushrooms are now the second most valued crop in the horticultural sector (Australian Mushroom Growers Association 2002). But the expansion rate decreased from 10 per cent in the 1990s to 0.02 per cent in 2003-2004, and the industry is under threat from Chinese imports (Australian Customs Service 2005a).

The sole local producer of preserved mushrooms in Australia, Windsor Farm Foods Limited (WFF), recently lodged an application to the Australian government calling for an inquiry into the alleged dumping of Chinese imports into the Australian preserved mushroom market. The influx of Chinese imports and alleged import dumping are said to be a direct result of anti-dumping duties that were imposed on Chinese imports into USA in 1999 (Australian Customs Service 2005a). These duties forced Chinese producers to seek other market destinations for their preserved mushrooms and so they targeted Australia. WFF claimed that Chinese imports have caused devastating “material injury to the Australian industry” in a variety of ways (Australian Customs Service 2005b p. 25).

These consequences have had a negative impact on price, volume and profitability (Australian Customs Service 2005b).

WFF also claimed that, due to their strong brand association and high-quality product, the company was still able to operate profitably and compete with the Chinese imports until 1999 (Australian Customs Service 2005b). It was not until after 1999 that the Chinese dumping margins added further damage (Australian Customs Service 2005b). WFF made numerous attempts to contest this strong price competition, particularly by changing its pricing strategies. In 2004, it successfully persuaded mushroom suppliers to reduce their prices and, as a result, maintained sales volume. Losses were nevertheless still recorded and market share remained below its 2003 level (Australian Customs Service 2005a).

Furthermore, WFF was confronting a high level of retailer concentration in its contest with Chinese imports. Large supermarket powers are capable of placing pressure on suppliers such as WFF, which must assume the role of price taker if it wishes to sell to these dominant retailers. If the supplier does not conform to the retailer's price, the retailer will search for alternative suppliers, such as China (Australian Customs Service 2005b). WFF does hold some degree of advantage as the sole domestic supplier with a degree of brand recognition, though not in relation to global competition.

Another plausible cause of injury was also revealed in the dumping inquiry beyond the strong competitive effects of Chinese mushrooms. A possible reason why the Chinese imports have caused so much market disruption is the market's position, and especially the position of the preserved mushroom brands, in the product life cycle (Australian Customs Service 2005a). Research has revealed that the Australian market is in a mature and/or declining life cycle stage (Australian Customs Service 2005b). The maturity stage is characterised by limited repeat purchases by existing customers, a saturated market and lack of product differentiation. The decline stage is characterised by sales decline due to changes in consumer tastes (Dunne 1999). The Australian mushroom market, according to investigations by the Australian government, is declining, particularly for products available in butter sauce (Australian Customs Service 2005b). Middle-aged and young consumers are no longer classified as primary purchasers of mushrooms in sauce. Repeat-purchase consumers are older and more commonly raised in an era in which preserved

mushrooms in sauce was the only alternative to buying fresh mushrooms (Australian Customs Service 2005b). WFF made attempts to re-establish its products by revamping its packaging in 2003/2004 to provide recipes and pictures of serving suggestions. However, it is doubtful whether mushroom products preserved in sauce offer the versatility of those preserved in brine.

In today's fast-paced society, less attention is focused around preparing meals. Consumers demand uncomplicated and effortless recipes such as stir-fry meals. Imported mushrooms prepared in brine may be seen as a more versatile, quick and easy ingredient to add to many dishes of different cuisines. Younger and more affluent consumers tend to cook these styles of meals and are expected to be more prominent in purchasing the imported cans. The main threat to WFF's market share might therefore come not so much from the more publicised price competition created by imported brands but from the capacity of these imported brands to capture a higher proportion of any additional expenditure on preserved mushrooms.

Sources of supply and market segments

There are three sources of supply in the Australian preserved mushroom market: domestic, Chinese imports and imports from other countries. In 2004, China supplied 96 per cent of imports (Australian Customs Service 2005a). WFF has been the only domestic producer of preserved mushrooms since it acquired Cowra Export Packers in November 2000.

WFF used data provided by the Australian Bureau of Statistics to identify three main market segments for preserved mushrooms in Australia (Australian Customs Service 2005a, 2005b):

- Industrial food processors were identified as purchasers of large bulk quantities that generally purchase the mushrooms as intermediate inputs for packaged products.
- Food service outlets are the customers who purchase the preserved products for restaurants and take-away stores.

- The retail sector is the largest segment, accounting for around 80 per cent of the Australian market. Its main customers are supermarkets and independent grocers.

End use of the product

The Australian Customs Service carried out a substitutability/end use study of imported and local preserved mushroom products and found that both imported and local mushrooms “appear to be purchased for their mushroom content” (Australian Customs Service 2005a, p. 5). WFF suggested that “while imported mushrooms were preferred for certain uses this had not always been the case, and if imported mushrooms were sold at undumped prices consumers would possibly switch to a more keenly priced local product” (Australian Customs Service 2005a, p. 5). Similar substitutability/end use patterns of consumption of the local and preserved mushrooms were confirmed in their “side by side positioning on supermarket shelves” (Australian Customs Service 2005a, p. 5). Furthermore, research has indicated that the products are marketed according to similar usage patterns in “soups, sauces, stir-fries, fillings and casseroles” (Australian Customs Service 2005a, p. 5). WFF has prepared numerous price injury claims in its application to the Australian Customs Service in the belief that it has suffered directly from price undercutting, price depression and price suppression actions taken by Chinese firms supplying preserved mushrooms to the domestic market (Australian Customs Service 2005b).

But end use of the imported and local brands may also be influenced by the mushroom genus and preserving medium. Although the mushrooms are all the same genus, *Agaricus*, the age of the mushrooms differs. Locally produced mushrooms are typically older whole mushrooms and imported mushrooms are typically younger (champignons) that are a mixture of whole mushrooms and pieces (Australian Customs Service 2005a). There is a clear difference between domestic and imported products in the preserving medium used. The expectation is that the demand for preserved mushrooms in brine is significantly greater than that for preserved mushrooms in butter sauce for a given increase in expenditure on preserved mushrooms.

Data source

The data used in the analysis consist of two years of weekly observations from 14 April 2002 to 4 April 2004 on sales of eight cans of preserved mushrooms of the genus, *Agaricus*, in Woolworth supermarkets in New South Wales. They are scanner-based retail sales data on three different brands. The brands comprise products of two domestic brands, Edgell and Windsor Farms, and one imported brand, Greenlands. The three different brands manufacture preserved mushroom products and market these in assorted sizes. These products are listed below.

- Edgell sliced mushrooms in butter sauce, 220 grams
- Edgell sliced mushrooms in butter sauce, 410 grams
- Windsor Farm whole mushrooms in 'lite' sauce, 220 grams
- Windsor Farm whole mushrooms in butter sauce, 220 grams
- Greenlands whole mushrooms, 280 grams
- Greenlands mushroom pieces and stems, 280 grams
- Greenlands whole mushrooms, 400 grams
- Greenlands mushroom pieces, 400 grams.

Despite the differences in preserving mediums and size discrepancies, the Australian Customs Service (2005b) needed to ascertain whether the products are competitively related. The analysis reported below provides evidence of the relationships between these eight products of preserved mushrooms.

Retail data were obtained in values (\$000s) and corresponding prices (\$ per can) for each product. The quantities that were used in the analytical model were calculated by dividing the values by the price per can.

Choice of model

A simultaneous equations model was specified to estimate market demand relationships. An eight-equation double-log demand model was estimated in which supply was assumed

to be fixed. This assumption was made given the retailer's power in pricing decisions and its practice of establishing supply contracts well in advance. The model was estimated using three-stage least squares regression analysis to take into account cross-equation error covariances that may have values that are not equal to zero and to allow restricted estimation to perform hypothesis tests across equations. The estimation model is used to assess demand relationships based on own-price, cross-price and expenditure elasticities of demand.

EViews Version 5.0 was used to estimate the model. This computer program requires the specified equations with variables in natural logarithms as well as a list of the instrumental variables to be used in the model. The first step was to construct price and quantity indices for the eight varieties of preserved mushrooms. The natural logarithms were then calculated to be used in the estimation model.

The estimated model of the eight preserved mushroom products sold in Woolworth supermarkets in New South Wales takes the general form:

$$\ln Y_i = \beta_0 + \beta_i \ln P_i + \sum_{j=1}^N \beta_{ij} \ln P_j + \gamma_i \ln Lb$$

where:

Y_i is the weekly quantity of the i -th product

P_i is the price of the i -th product

P_j is the price of the j -th product

Lb is the weekly budget allocated to purchases of the eight products

β_i is the estimated own-price elasticity of the i -th product

β_{ij} is the estimated cross-price elasticity of the i -th product for the price of the j -th competing product.

The estimated model uses nine instruments, assuming that prices and budget share were predetermined in this model (determined before the week in which the observation is made). That is, the prices and budget expenditures are the exogenous variables. The budget expenditures represent the amount of money customers had set aside to purchase

preserved mushrooms. The standard constraints are placed on the parameters, namely homogeneity, symmetry and Engel aggregation. In the latter case, weights are expressed as a proportion of total expenditure on preserved mushrooms.

A second double-log model of a similar structure to that described above was estimated with two equations in which the four products of domestic and imported preserved mushrooms were individually aggregated. Results were compared with those for the model containing equations for the eight individual products.

Results

Estimates of elasticities obtained from the three-stage least squares demand model comprising eight individual equations are provided in summary form in Table 1. The estimated coefficients of the three-stage least squares demand model comprising two aggregate equations are presented in Table 2. Explanatory power for the equations in the models ranges from satisfactory to high. For the model with individual products, R^2 values vary between 0.60 and 0.84. The R^2 values in the aggregate model are 0.59 and 0.70.

Four main propositions were tested using these results:

- The price elasticities of demand are higher for imported preserved mushroom products than for domestic preserved mushroom products because there is greater brand loyalty to the latter.
- The price elasticity of demand is higher for the 'lite' Windsor preserved mushroom product than for its nearest Windsor alternative product because health-conscious consumers purchasing the former are less concerned about price.
- The expenditure elasticities of demand for imported preserved mushrooms are higher than those for domestic preserved mushrooms because they are preferred by better off and younger consumers.
- Positive cross-price elasticities exist between domestic and imported preserved mushroom products, indicating that they are competing products.

Brand strategy versus pricing strategy

As expected, there is clear evidence of consumer price responsiveness in their purchasing habits for both domestic and imported products of preserved mushrooms. Six of the eight estimates of own-price elasticities of demand are negative and significantly greater than unity. The two odd results have a statistical explanation. The own-price elasticity of demand for the Windsor Farm 220 grams can of mushrooms in butter sauce resulted in a positive and insignificant outcome and the estimate of own-price elasticity for the Windsor 220 grams can of mushrooms in 'lite' sauce is not significant at the 10 per cent level of significance. These two results are almost certainly due to the existence of multicollinearity, given an extremely high correlation between the two variables, suggesting that store policy is to vary the prices of these two products in unison.

The growth of Chinese imports forced the Australian producer to focus its strategies on its competitive advantages. One reputed competitive advantage has been brand recognition: Chinese imports would compete predominantly on a price basis but the Australian producer would rely more on brand loyalties. However, the results from a test of this hypothesis suggest it is false. In aggregate, and across most of the individual estimates, the own-price elasticities of locally produced preserved mushroom products were found not to be significantly lower than the own-price elasticities of the imported preserved mushroom products. Imported products and local products of preserved mushrooms appear not to be distinguished by brand recognition as much as expected.

This result could be due to the changing nature of society and its effect on eating habits. Consumers are increasingly 'time-poor' and desire foods that are not costly, are simple to use, and require little to no preparation. Preserved mushrooms are placed in this category. There are no socially desirable connotations tied to preserved mushrooms so it is realistic to say that consumers will search for the lowest cost item, leading to more purchases of the imported product.

Another possible explanation is that socially desirable connotations might exist when purchasing preserved mushrooms, particularly with recent publicity highlighting the need to support local producers, but differentiation between Australian-produced products and imported products is lacking or unclear, and definitive labelling does not exist to inform

consumers about the origin of the product. A further plausible explanation is that the demand responsiveness of consumers for imported mushrooms is also dampened, this time by the presence of a sizeable proportion of health-conscious consumers who prefer mushrooms preserved in brine to mushrooms preserved in butter sauce. This issue is discussed in the next section.

Targeting health-conscious consumers

Consumers are becoming more aware of the need to be health-attentive, and two forms of differentiation exist between the eight products in their appeal to health-conscious consumers. First, these consumers can choose between the Windsor 220 grams can in 'lite' sauce and other Windsor cans in butter sauce. Second, they can choose canned mushrooms preserved in either butter sauce or brine.

Differences in responsiveness for the Windsor 'lite' product

It was expected that the Windsor 'lite' product would be less price-responsive, reflecting consumer response dictated to a substantial extent by health considerations rather than price. Surprisingly, no significant difference was found between the magnitudes of the own-price elasticities of demand for the 'lite' product and the Windsor 220 grams can in butter sauce, which is the most closely related product among the domestic products.

The fact that the price elasticity of demand for Windsor whole mushrooms 'lite' product is not significantly lower could be due to two factors. Labelling information that provides the purchaser of the 'lite' alternative a clearer choice between these two cans is apparent only when the products are positioned side-by-side on the supermarket shelf. But the arrangement of products varied greatly in the Woolworth supermarkets visited by the senior author to observe the products at the retail level. WFF supplies six varieties, including peppercorn sauce, garlic sauce and reduced salt varieties, to Woolworth supermarkets available in the same can size. All available cans comprise very similar packaging with the exception of the marked preserving medium. This considerable scope of product choice along with numerous other canned mushroom products might confuse consumers and make it difficult for them to identify the 'lite' alternative. Consumers do not want to make lengthy purchase decisions when buying a can of preserved

mushrooms. A system of clear labelling is needed quickly and easily to persuade consumers to purchase particular products (Hunt 2005). The second explanation is more prosaic, being a problem of multicollinearity between the two variables that was alluded to above. The existence of multicollinearity is likely to have made the hypothesis test unreliable.

It was expected that young consumers coming into the market and consumers from higher income groups would prefer the Windsor 'lite' product to its closest alternative, and so increases in the consumer budget for preserved mushrooms would favour the 'lite' product. (Given that they are in at least the mature stage of their product life style, it is assumed that demand for Windsor non-'lite' preserved mushroom products is static among existing consumers, price remaining unchanged, so any budget change is due to younger consumers entering the market or older consumers leaving it.) But no difference in expenditure elasticity was detected. This result suggests a need to investigate further the expenditure elasticities of demand for this product compared with other domestic preserved mushroom products. In particular, we need to test our assumptions that expenditure elasticities are good proxies for income elasticities and more affluent consumers prefer the 'lite' product. If these assumptions prove to be robust, one explanation for the result, mentioned above, may be a lack of differentiation between the two products by consumers who make quick and relatively uninformed buying decisions when it comes to purchasing preserved mushrooms. The Windsor 'lite' alternative may not stand out on the supermarket shelves.

Consumer preferences for brine or butter sauce as the preserving medium

Results for the estimated expenditure elasticities are in line with the expectation that, as expenditure increases, the quantities demanded of cans of mushrooms preserved in butter sauce do not increase as much as those for mushrooms preserved in brine. That is, the expenditure elasticities of demand for imported preserved mushrooms are generally higher than those for domestic preserved mushrooms.

For the domestic products, the budget expenditure elasticities range from 0.68 to 1.00 and are all highly significant. The Windsor 220 grams 'lite' product, which has an estimated elasticity of 1.00, is the only domestic product that would retain its share of any

additional expenditure on preserved mushrooms. It is interesting to note the difference between the two imported 400 grams products. The budget elasticity for imported Greenlands whole mushroom 400 grams can is just 0.54, meaning a 10 per cent increase in expenditure on preserved mushrooms leads to 5.4 per cent increase in the quantity demanded. In contrast, for the Greenlands mushroom pieces in the 400 grams can, a 10 per cent increase in expenditure leads to an increase in quantity demanded of 26 per cent. The discrepancy between these two estimates is difficult to explain.

The aggregate expenditure elasticity of locally produced preserved mushrooms was found to be significantly lower than the aggregate expenditure elasticity of the imported preserved mushrooms. This result provides further support for the proposition that imported products capture more of any additional expenditure on preserved mushrooms than do local products.

Competitive relations between domestic and imported products

Estimates of the cross-price elasticity of demand for some domestic and imported products are significant and positive, in line with expectations of positive cross-price elasticities for competing products. The imported Greenlands 280 grams and 400 grams cans have particularly strong cross-price effects on other imported and domestic products. But a number of other estimates were not significantly positive and no clear pattern of cross-price elasticity estimates emerges between products. The substitute relationships for each product seem to be very specific to each type of can (size and preserving medium). No obvious explanation could be found for the nature of these cross-price elasticities.

Overall results are nevertheless consistent with those obtained using the two-equation demand model for aggregate imported and Australian products that provides evidence of a strongly significant, albeit inelastic, competitive relationship. They support the observation by the Australian Customs Service (2005b) that “the canned mushroom market was very competitive and volatile with fickle consumer preference as price differential encouraged brand and product swapping”. The failure of most cross-price elasticities of demand to exceed unity is probably explained in most cases by differences in product characteristics, notably the preserving process.

The strong evidence that the expenditure elasticities of imported products as a group are higher than those of domestic products as a group supports the proposition that imported products in brine represent a more versatile product that appeals to the fast-paced, younger shoppers evident in today's society. The products preserved in brine are convenient in quick recipes as an additive that does not have unwanted flavour. Also, unlike the domestic products, they are available in whole mushrooms and pieces and stems making them suitable to a variety of different recipes. As previously mentioned, the products available in sauce are the domestic products that are said to be in a mature to declining stage of the product life cycle. Consumers are demanding fewer of the products in sauce and so are increasingly choosing the only other alternative, the imported products. This may also be the reason behind WFF's unsuccessful product launch a few years ago of a 'Mushroom Creations' range that included luxurious sauces such as Creamy, Italian and Stroganoff sauce (B. Hayward 2005, personal communication, 5 May).

Future research

Several data limitations of the study could be alleviated by obtaining a longer time series and a more comprehensive set of explanatory variables for further research. More recent time series data would be valuable in light of recent media publicity about cheaper imports entering the Australian horticulture industry. It would be interesting to see how the demand response is changing, relative to the increasing public awareness of such issues. An additional limitation of the data that could be lifted in further research is the narrow source from which they were collected. More data would be beneficial that included other states and territories in Australia, as well as data sourced from other supermarkets.

Other products could also be incorporated into the study, such as the supermarket home brands that include local and imported products. Scope exists to extend the analysis to include fresh mushrooms data with preserved mushroom data. Perhaps some of the unexplained demand response could be attributed to reactions in the fresh mushroom segment of the market.

It would be also be worth conducting more detailed market research in two areas. First, the analysis of expenditure elasticities depends on two strong assumptions. It was restricted because the data only cover the proportion of the consumer's disposable income that was allocated to mushrooms. Actual incomes of consumers who are purchasers of preserved mushrooms would be very useful. Also, it is assumed that demand for Windsor non-'lite' preserved mushroom products is static among existing consumers. These assumptions need to be tested through focus group discussions comprising consumers from different socioeconomic and age groups.

The second market research area is a comparison of products preserved in sauce with products preserved in brine, to test the assumptions that products preserved in brine are preferred by newer, younger entrants to the market and people from higher socioeconomic groups. This study indicates that potential advantages may lie with products preserved in brine. Perhaps instead of releasing a 'Mushroom Creations' range, a range of brine-preserved products would be more beneficial to the local industry. Again, a suitable way to establish this market research would be a focus group discussion comprising consumers who represent different age and socioeconomic groups.

Conclusion

Data on eight individual products of preserved mushroom cans were used to estimate and investigate demand response differences between local and imported products of preserved mushrooms. An eight-equation three-stage least squares regression double-log model was used to identify differences in own-price, cross-price and expenditure elasticities of demand between four cans of domestic preserved mushrooms and four cans of imported preserved mushrooms. Also, a two-equation model was estimated in which the four domestic products were aggregated into one variable and the four imported products were aggregated into another variable.

The estimated models provided results that were used to test propositions on differences in demand responsiveness between imported and domestic products, and between domestically produced mushrooms preserved in 'lite' and normal butter sauce. The

comparison of estimation results against propositions enabled inferences to be made regarding brand loyalty, price sensitivity and product substitutability.

Estimates of own-price elasticities of demand are generally negative and significant, confirming the expectation of price-elastic demand. However, two estimates of own-price elasticity for individual products are not significant, an outcome that can be attributed to multicollinearity that makes it difficult to discern any difference in price responsiveness for the locally produced mushrooms preserved in 'lite' and normal butter sauce.

The local industry was expected to have a competitive advantage in terms of brand recognition and demand for its products were expected to be less price-sensitive; this was not able to be confirmed. The results suggest that local products may in fact be similar to imported products in terms of price responsiveness.

Estimates of the cross-price elasticity of demand produced a number of significant and positive results in line with expectations, but there is also a wide range of estimates that are difficult to explain. Nevertheless, the analysis of aggregate demand for domestic and imported preserved mushrooms provided clear evidence of price competition between imported and domestic products.

A test of the proposition that more of the imported product is purchased for an increase in budget is confirmed both in the analysis of individual products and the analysis of aggregate domestic and imported products. While the test results for individual products do not completely support expectations, it is reasonable to suggest that for a given budget increase, the expenditure on imported mushrooms preserved in brine will increase relative to that on domestic mushrooms preserved in butter sauce. Consumers appear to be partial to products in brine, most likely because of their greater versatility of use in cooking. Future market growth may lie with firms that market the more versatile product in brine. As WFF currently provides the domestic market only with products in sauce, it may be disadvantaged in the future and may need to rethink its production and marketing strategies.

It was also expected that demand for the Windsor 'lite' product would be clearly distinguishable from other domestic products for a given increase in budget, given society's increasing endeavour to be health-conscious. This was not proved, possibly due

to lack of distinctiveness on the supermarket shelf or it may simply be that our assumptions that expenditure elasticities are good proxies for income elasticities and more affluent consumers prefer the 'lite' product do not hold.

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Table 1: Summary of Three-Stage Least Squares Elasticity Estimates for Individual Products

Intercept	Edgell slices in butter 220g	Edgell slices in butter 410g	Windsor in lite 220g	Windsor in butter 220g	Greenfields whole 280g	Greenfields pieces & stems, 280g	Greenfields whole, 400g	Greenlds pieces. 400g
Constant Term	-0.60*	-0.64**	-2.68***	-2.25***	-5.56***	-3.18***	0.28	-8.74***
Price of Edgell slices in butter 220g	-5.50***	-2.70***	-1.74	1.66	-2.24***	-2.15***	-3.44***	-1.54***
Price of Edgell slices in butter 410g	-0.15	0.36	2.08***	2.81***	0.53	0.39	1.05***	1.85***
Price of Windsor lite 220g	1.70	0.85	-0.03	0.17	1.30***	0.20	0.24	2.33***
Price of Windsor in butter 220g	-0.59	-0.35	0.02	-5.33	-4.55	1.28	4.93	-0.71
Price of Greenfields whole 280g	-0.22	-0.16	0.18	0.58*	4.54	0.41	-4.72	0.21
Price of Greenfields pieces and stems 280g	0.16	0.25	-0.16	-0.07	-0.57*	-0.02	0.06	1.01**
Price of Greenfields whole 400g	0.60***	0.61***	0.95***	0.65*	0.58	-0.47	0.34	0.50
Price of Greenfields pieces 400g	-0.25**	-0.06	-0.46***	-0.29	0.66***	0.50*	0.42*	-0.04
Budget share	0.68***	0.90***	1.00***	0.80***	1.69***	1.16***	0.54***	2.64***

*** < 0.01 probability ** < 0.05 probability * < 0.10 probability

Table 2: Estimates of the Demand for Local and Imported Preserved Mushrooms

Dependent variable	Quantity of local preserved mushrooms	Quantity of imported preserved mushrooms
Intercept	-0.435 (0.258)	-1.043 (0.381)
Price of local mushrooms	-1.551 (0.167)	0.812 (0.247)
Price of imported mushrooms	0.595 (0.129)	-1.877 (0.190)
Expenditure	0.956 (0.081)	1.065 (0.119)

Figures in parenthesis are standard errors.