Department of Agricultural & Resource Economics

Testing for Structural Change in Australian Meat Demand

A dissertation submitted in partial fulfilment of the requirements of the degree of Master of Economics at the University of New England

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Declaration

I certify that the substance of this dissertation has not already been submitted for any degree and is not currently being submitted for any other degree.

I certify that, to the best of my knowledge, any help received in preparing this dissertation, and all sources used, have been acknowledged.

Abstract

The Almost Ideal Demand System (AIDS) and Rotterdam models were used to test for the existence of structural change in Australian per capita consumption data on meats (beef, lamb, pigmeat and chicken) for the period 1965:1 to 1992:4. The models were estimated in single equation as well as in nonlinear system of equation versions. Both models showed the presence of structural change with the AIDS model producing more consistent results. The changes occurred in the early 1970s for beef, lamb and pigmeat and in the early 1980s for chicken. However, the effects of the changes were very small with only a 2.44 percent drop in expenditure share of beef, a 2.96 percent drop in lamb, a 0.71 percent increase in pigmeat and a 2.45 percent increase in chicken over the period of time assuming prices and expenditure held constant. These facts support the results of previous studies where the main determinant in quantity of meat demanded are changes in prices and total expenditure. Because of high collinearity of the data, the LA/AIDS model generated similar estimated elasticities to the 'true' AIDS model and due to the similarity of their right hand sides the first-differenced LA/AIDS model estimated similar elasticities to the Rotterdam model. This study also reveals that based on a test developed by Alston and Chalfant (1993) Australian per capita consumption data on meat rejects the Rotterdam model in favour of the AIDS model.

Contents

Declaration ii

Abstract iii

List of Tables vi

List of Figures viii

Acknowledgments ix

1. Introduction 1

1.1 Background to the study 1

1.2 Specific objectives of the study 4

1.3 Outline of the dissertation 5

2. Literature Review 6

2.1 Previous studies 6

2.2 Structural change analysis 9

2.2.1 The general approach 9

2.2.2 Some basic assumptions of structural change analysis 10

2.2.3 Parametric analysis 12

2.2.4 Non-parametric analysis 15

2.3 Summary 16

3. The Models 17

3.1 The economic model 17

3.1.1 Neoclassical demand theory 17

3.1.2 Restrictions 17

3.1.3 Weak separability and the aggregation problem 20

3.2 The econometric model 20

3.2.1 General specification and variable choices 20

3.2.2 The Almost Ideal Demand System (AIDS) 22

3.2.3 The Rotterdam model 25

3.3 Summary 27

4. Method of Analysis 28
4.1 Estimation issues 28
4.2 Data sources 30
4.3 Data characteristics 30
5. Results and Discussion 39
5.1 Coefficient and elasticity estimates 39
5.2 Structural change analysis in the linear single equation demand models 51
5.2.1 Chow Test 51
5.2.2 Farley-Hinich (F-H) test 52
5.2.3 Ohtani-Katayama (O-K) test 53
5.3 Structural change analysis in nonlinear demand systems models 56
5.4 Specification tests 60
5.5 Summary 64
6. Conclusion 67
6.1 Summary of findings 67
6.2 Conclusions and implications 68
6.3 Limitations of the study 69
6.4 Areas for further study 70
References 71
Appendix 1: Data Description 78

List of Tables

Table 1:	Summary statistics of the data	34
Table 2:	The correlation matrix	35
Table 3:	Testing for unit roots	38
Table 4:	Notation	44
Table 5:	Coefficients for single equation models with homogeneity restrictions imposed and corrected for autocorrelation	45
Table 6:	Measures of equation goodness-of-fit for restricted single equation models	46
Table 7:	Uncompensated price and expenditure elasticities for single equation models	47
Table 8:	Coefficients for system of equations models with homogeneity, Slutsky symmetry and adding-up restrictions imposed and corrected for autocorrelation	48
Table 9:	Uncompensated price and expenditure elasticities for restricted system of equations models	49
Table 10:	Comparison of estimated elasticities with other studies	50
Table 11:	Pair of subsample observations where the sequential Chow tests are statistically significant in the first differenced LA/AIDS model	54
Table 12:	Pair of subsample observations where the sequential Chow tests are statistically significant in the Rotterdam model	54
Table 13:	F-values of the Farley-Hinich tests in the LA/AIDS and Rotterdam models	55

Table 14: F-values of the Ohtani-Katayama tests in the LA/AIDS and Rotterdam models 55

Table 15: Results of likelihood-ratio tests for structural change 58

Table 16: Exogenous shifts in the LA/AIDS model 58

Table 17: Estimated elasticities before and after the structural change 59

Table 18: Testing the Rotterdam and LA/AIDS specification 65

Table 19: Lamda values for the specification test before and after the structural change 66

Table A1: Meat price and consumption data 80

List of Figures

Figure 1:	Australian meat consumption, 1965 to 1992	2
Figure 2:	Supply and demand relationships	11
Figure 3:	Nominal and real retail prices of meats, 1965 to 1992	32
Figure 4:	Real retail price and quantity consumed, 1965 to 1992	33

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