

## Estimating preference change in meat demand in Saudi Arabia

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### Abstract

The purpose of this paper is to investigate the preference change in the demand for meat subject to random coefficients in Saudi Arabia. A Fortran 77 program has been designed to estimate the demand function for meat using Kalman filtering techniques and maximum likelihood approach. The initial values of the coefficient and covariance estimates are an essential prior information in the Kalman filtering techniques. Results provide substantial random coefficients in red meat, implying important structural change occurs in red meat more than poultry and fish demand.

### 1. Introduction

The result of the shock in the Saudi economy in the past two decades caused a change in behavioral consumption among the Saudi population. The nation of Saudi Arabia is becoming more urbanized and cosmopolitan. The level of education has risen very sharply. Medical care has improved. Technology for storing frozen and chilled foodstuffs has increasingly adopted. These factors, along with increased average real income, have improved standard of living and changed significantly the structure and pattern of consumption.

The Saudi economy, over the period study, was facing two stages of economic phenomena: the

first stage was the economic boom during late 1970's and early 1980's; and the second stage was the stable economy in late 1980's. The economic variables were changing and affected from one year to the next over the stabilization period. Accordingly, food consumption was affected by this phenomena. Food quality, such as fat and cholesterol level, is the major concern among the Saudi consumers recently. Thus, important shift in meat preferences may have produced. Making available information on expected meat demand will facilitate policy makers to reduce the potential of a meat shortage. All the previous studies made on demand function for meat have used the classical fixed-parameter models which might lead to poor information on projected meat demand. Thus, the objective of this paper is to investigate the preference change in the demand for meat. Appropriate econometric methods subject to ran-

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