An analysis of the demand for fresh fruit in Scotland

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**Key message**: This study analysed how demand for fresh fruits in Scotland changes when price and income change. Demand for grapes and soft fruits changed more when price and income changed than demand for citrus fruits, apples and pears and bananas. Reducing the price of grapes and soft fruits may help to encourage more people to purchase them, leading to dietary improvements.

**Key Findings**

- This study explored how demand for fresh fruit in Scotland changes when price and income change. At a time when obesity is a major challenge in Scotland and many other developed countries, this study provides evidence for how changing the price of healthy foods can alter consumption levels. In turn, this can improve diets and reduce diet-related health problems.
- According to Defra’s Family Food Survey data\(^4\), expenditure on fruits has been rising since the 1980s, in contrast with expenditure on food and drinks overall. This may indicate a number of different processes, including rising interest in purchasing fresh fruit for health reasons. However, this expenditure growth stopped in 2007 due to the recession and to rising prices.
- According to the Defra Survey, the share of processed fruits in total food and drink expenditure in the UK has remained relatively constant from the 1970s until the present (approximately 2.7%). However, the share of fresh fruits steadily increased over this period, until the recession of 2007 (from 3.7% in 1974 to 6.8% in 2006).
- Using data from the Kantar Worldpanel Dataset for Scotland, this study specifically focused on six fresh fruit categories: citrus fruits (oranges, tangerines and grapefruit); apples and pears; bananas; grapes; soft fruits (i.e. strawberries, raspberries, blackberries and blueberries) and a residual category (other fruits).
- The study found that price movements are of importance for the demand for all fruits. However, the sensitivity of demand to price change was particularly evident for grapes and soft fruits.
- Soft fruit can be considered ‘the flagship fruit’ for Scotland so this link between price and demand is important. The fruit in the other categories is mostly bought from the rest of the UK (usually England) or from abroad. Increasing demand for soft fruit in Scotland may reduce reliance on fruit imported from elsewhere.
- In addition, the study suggested that reducing the price of soft fruits may help to boost consumption, bringing dietary improvements and reducing obesity and weight problems in the population.

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\(^4\) More information can be found on the Defra Family Food Statistics website [here](https://www.gov.uk/government/collections/family-food-statistics).
Introduction

The obesity epidemic is worsening in many developed countries including Germany, France, The Netherlands, the United Kingdom (UK) and the United States. According to OECD statistics in 2012, the rate of overweight and obese people in the populations of Germany, the UK and the United States increased from 44% to 55% from 2000 to 2010. In the UK, the national average of overweight and obese people is 67% of males and 63% of females over the age of 15 years of age. Scotland has one of the worst overweight and obese records in the UK; 68% of males and 62% of females were considered obese or overweight in Scotland in 2010. More alarming is the rise in obesity levels in children. Over 15% of Scottish boys and 13% of Scottish girls under the age of 16 were considered obese in 2010.

A key factor contributing to obesity is the poor quality of peoples’ diets in many developed countries, especially amongst lower income groups. The consumption of healthier food has been proven to prevent many diet-related health issues including cardio vascular disease, cancer and strokes. The problem of poor quality diets has been worsened by the impacts of the economic recession and rising prices of food which have reduced the potential for people to purchase healthy food. It is important to analyse the effects of income and price changes on demand for food products in order to help decrease or, better still, prevent the problem of obesity and to encourage people to choose healthier food products.

Methods

Demand for six fresh fruit categories was examined over the period 2006 to 2011 to explore their sensitivity (or elasticity) to changes in prices and incomes. Data from the Kantar world panel dataset for Scotland was used in this study, which is part of the UK-wide panel. The dataset for Scotland contains information on weekly food and drink purchases for consumption at home for 3,003 households. Participating households use barcodes and scanners to register their grocery purchases. Non-bar coded items were not recorded using this method, which helps to make the task as simple as possible for participants. Instead, additional information on non-bar coded items was collected through questionnaires and the submission of receipts. Population weights are used to expand the information to represent the entire Scottish population (excluding Shetland where no information is collected).

Policy/Industry Implications

- The results help to inform the design of marketing campaigns to encourage the consumption of healthier products.
- The study shows that lowering the prices of Scotland’s soft fruits would help to make them more affordable and would thus increase demand.
- As well as potentially bringing improvements to diet and reducing obesity, this would also reduce Scotland’s reliance on imports of fruit from elsewhere and boost demand for home-grown products.

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