

**Chair of the UK Statistics Authority, Sir Michael Scholar KCB**

Dr D G Jones

8 August 2011

Dear Dr Jones

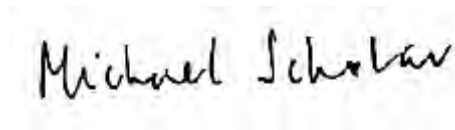
**FORMLULA EFFECT AND THE VALIDITY OF THE CONSUMER PRICES INDEX**

Thank you for your letter of 5 July concerning the Consumer Prices Index.

I have asked the National Statistician to respond to the issues you raise. The National Statistician is the Chair of the Consumer Prices Advisory Committee and the Statistics Authority's principal adviser on these matters as stipulated under the terms of the *Statistics and Registration Service Act 2007*. I attach her response.

I am copying this letter to Jill Leyland, Vice President of the Royal Statistical Society.

Yours sincerely



**Sir Michael Scholar KCB**

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**Jil Matheson** National Statistician | Ystadegydd Gwladol

Dr D G Jones

8 August 2011

Dear Gareth

Sir Michael Scholar has asked me to respond to your letter of 5 July concerning the formula effect and its effect on the validity of the Consumer Prices Index (CPI).

I agree with some of the interpretation in your analysis but not the main conclusion regarding consumer behaviour and substitution. This is because the analysis crucially ignores the utility of a brand of product. In other words, the decision to purchase a particular brand depends not just on price but also on the utility or product satisfaction to an individual.

To take an example, two brands of a product cost 60 pence and 50 pence respectively but a proportion of people will still buy the more expensive brand because of its utility to that group. If that brand increases in price by 5 per cent to 63 pence and the cheaper alternative increases in price by 20 per cent to 60 pence, the price differential will have decreased in absolute and relative terms and there is the likelihood that some people who had previously bought the cheaper alternative will switch because the increase in satisfaction to them will be worth the extra 3 pence or 5 per cent in price whereas it wasn't worth the extra 10 pence or 20 per cent. There is, of course, the possibility that the individual will decide not to purchase either but that is a different issue which is dealt with in the Index by updating the item weights annually.

More generally, the CPI follows international guidance on representing low level substitution behaviour. In particular it complies with a European Regulation on the formulae used in compiling low level aggregates. This Regulation was developed by the statistical office of the European Union (Eurostat) in conjunction with experts from Member States.

Given these points, we will not be suspending publication of the CPI.

Yours sincerely

**Jil Matheson**