

INTERNATIONAL CONFERENCE ON PRICE MEASUREMENT

OTTAWA, 31 OCTOBER TO 2 NOVEMBER 1994

SAMPLING AND DATA CAPTURE ISSUES IN CPI CONSTRUCTION

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Summary

As part of an initiative to strengthen the quality and timeliness of the UK Retail Prices Index (RPI), the UK CSO has recently undertaken a major review of arrangements for local price collection for the RPI. This paper discusses statistical and practical issues which had to be tackled in moving from a wholly purposive sample to probability sampling and in introducing computer-assisted data capture with validation checks at the point of data entry.

Introduction

1. In recent years, there has been increasing concern about and criticism of some aspects of the current data collection arrangements for the UK RPI:

- (i) the locations where prices are collected largely reflect administrative convenience rather than a statistical design;

*This Paper is an interim personal report by the author and does not represent an official statement by the CSO. Some of the developments outlined in this note are still in progress and updated information will be presented at the Conference.

- (ii) the distribution of locations is out of line with the distribution of consumer spending by region and type of area;
- (iii) the pricing takes place in a largely fixed panel of shops which is failing adequately to reflect developments in shopping patterns;
- (iv) the limited outlet selection which does take place is purposive, based on subjective judgements by price collectors;
- (v) the price collection is carried out by a separate executive agency which has few skills or knowledge relevant to data collection;
- (vi) the selection of brands and particular products to be priced is made subjectively by individual price collectors, without a direct reference to relevant market research information.

2. These arrangements have been increasingly difficult to defend for the UK Central Statistical Office (CSO) which is now responsible for compiling and publishing all key UK economic statistics, including the RPI, and has publicly set for itself a mission and strategy with a quality statistical service as its key theme:

" To improve decision making, stimulate research and inform debate within Government and the wider community by providing a quality statistical service"

CSO MISSION STATEMENT

3. The UK Government initiative "Competing for Quality" which has opened public sector activities to competition from the private sector has also had service quality as one of its main themes. The market testing programme developed by the CSO under this initiative included the RPI price collection as one of the earliest tests to be carried out.

The Current System

4. The CSO is responsible for the compilation and publication of the RPI. This is based on monthly collection of some 150,000 price quotations. Of these, some 140,000 are obtained locally from outlets in 180 geographical locations across all regions of the UK. The prices are collected by 400 or so staff from the Government's Employment Services (ES) Agency, whose core activity is administration of unemployment benefit. The prices cover a fixed "basket" of around 500 items representative of goods and services bought by most UK households.

5. The price quotations are collected over a 3 day period. Most of the collection is carried out in person, but some telephone interviewing is also used. The CSO specifies "representative" items at broad level, for example within "Cereals" the CSO specifies item "Cornflakes". In each outlet, the collector chooses a particular brand or variety, for example "Kellogg's Cornflakes", and a particular packet size, for example 400 grammes.

6. In the UK system, the allocation of items to outlets is handled through a system of grouping of related commodities on collection forms. The full set of items is broken down into 80 or so such forms (a summary of their descriptions is at Annex A and some examples of the forms are at Annex B). Each form is designed to represent a set of commodities which can typically be found in a single outlet. The choice of what products to price in a given outlet is then a question of matching one or

more forms to the selected outlet. The target for the collectors is to price in each location two complete sets of such forms. Additional details of brands and products are entered onto the forms manually.

7. In addition to locally collected prices, the CSO makes use of certain centrally collected price and tariff data in the construction of the RPI. These data are supplied by a number of retail organisations and providers of consumer services, all operating central pricing policies. This system has the obvious advantage of helping to reduce the costs of data collection and the coverage of the central collections has been increasing in recent years, to the point where it now represents some 60% of the index by weight. Special arrangements apply for retail organisations with regional pricing policies.

8. The RPI is an annually chain-linked Laspeyres-type index. At each link point (January) there is an annual review of the representative items selection, and the main weights are also updated annually at this time with the latest information from the UK Family Expenditure Survey.

9. The latest survey and market research data are used to update lower-level weights. Where necessary, new outlets are selected by price collectors as "typical" of where people shop locally and incorporated as replacements for closures, but there is no systematic review of the outlet panel.

Objectives of the RPI Market Test

10. Opening the process of RPI data collection to competition has provided an opportunity for a step change towards a number of CSO objectives:

- improved control of the RPI sample by the CSO;

- use of statistical sampling methods;
- more confidence and better value for money in local price collection;
- enhanced data validation checks leading to improved data quality;
- committed collection activities by a specialist organisation;
- better definition and documentation for CSO procedures;
- increased use of new technology as a means to delivery of better data quality and improved value for money.


11. The market testing process has acted as a catalyst for achieving these CSO objectives. It has, however, also led to a considerable upheaval in a system which has to deliver data to a very tight timetable and to a high standard of reliability and where those operating the system have not been accustomed to radical change. Given that measurement of price changes on a fixed "basket" of constant quality items is one of the main principles underlying the RPI and that continuity of RPI price collection is vital, the challenges which this has presented for the CSO are considerable.


Contracting out RPI Market Price Collection

12. The initial phase of the preparatory work for the tendering process focused on the definition of the scope of the RPI work to be open to competition and on the specification of the services required. Following an initial market analysis the CSO

SCOPE OF RPI LOCAL PRICE COLLECTION MARKET TEST

GENERIC FUNCTIONS		LOCAL PRICE COLLECTION	CENTRAL PRICE COLLECTION
DEFINITION OF ITEMS THAT MAKE UP THE INDEX		Outside scope of the market test	Outside scope of the market test
TRAINING OF COLLECTORS		In scope of the market test	Outside scope of the market test
RECRUITMENT OF SHOPS IN SPECIFIC LOCATIONS		In scope of the market test	Outside scope of the market test
SELECTION OF VARIETY WITHIN ITEM CLASSIFICATION		In scope of the market test	Outside scope of the market test
PRICE COLLECTION		In scope of the market test	Outside scope of the market test
DESPATCH FROM FIELD FORCE		In scope of the market test	Outside scope of the market test
INITIAL VALIDATION CHECKS		In scope of the market test	Outside scope of the market test
PROCESSING		In scope of the market test	Outside scope of the market test
FINAL VALIDATION		Outside scope of the market test	Outside scope of the market test
INDEX PRODUCTION AND PUBLICATION		Outside scope of the market test	Outside scope of the market test

 In scope of the market test

 Outside scope of the market test

concluded that the test should cover the local price collection and collector training, together with initial validation and processing. The CSO retains responsibility for the definition of the index and for the sampling arrangements, for the choice of the RPI "basket" of representative items, for the data collected centrally and for the final compilation, validation, aggregation and publication of the index.

13. The clarification of the scope of the tendering process was a very important starting point for the specification of the outputs and services required, and for determining the performance standards and other operational requirements which should be met, notably the use of electronic data capture which remains a firm goal for the CSO, at least in the medium term.

14. The preparation of the detailed specification in itself had important benefits for the CSO. As this formed the basis for bidding and ultimately the drafting of the formal contract, it had to lay down very clearly full details of the current and revised data collection system, including the definition of the locations where prices are to be collected, quotas for prices collection by outlet type and commodity group, the grouping of items for allocation to outlets, details of items requiring collection with less than monthly frequency and specification of items and outlets where prices may be obtained by telephone (Annex C). It also had to describe the validation checks and coding required as part of the data collection process, the treatment of missing items, and procedures for outlet and product replacement. The interface between the data collection and initial validation and processing on one hand and the CSO final analysis and processing system on the other also had to be laid down, including precise file formats.

RPI LOCAL PRICE COLLECTION MARKET TEST: SUMMARY OF REQUIREMENTS

<p>KEY DELIVERABLES</p>	<ul style="list-style-type: none"> • The transfer of complete sets of price quotations in specified electronic format • Comments on price quotations falling outside agreed ranges • Feedback on trends or developments which may have a direct or indirect effect on the RPI production
<p>KEY PERFORMANCE STANDARDS</p>	<ul style="list-style-type: none"> • Accuracy and reliability of price quotations supplied • Completeness of price quotations and associated commentaries • Timeliness of price quotations and associated commentaries, and of responses to CSO queries • Effective execution of changes to sampling plan and other CSO requirements
<p>OPERATIONAL REQUIREMENTS</p>	<ul style="list-style-type: none"> • CSO policy is to minimise the constraints placed regarding HOW the specification is met, thereby allowing maximum scope for innovation and creativity • The use of electronic data capture technology for the local price collection is a medium term goal of the CSO

15. The performance criteria which the data collection agency would have to meet also had to be defined. These included indicators of:-

- (i) coverage of price collection;
- (ii) quality of price data;
- (iii) timeliness;
- (iv) responsiveness to queries from the CSO;
- (v) quality of descriptive information;
- (vi) data security.

16. The quantitative assessment of the quality of the price data collected presented particular difficulties. The possibility of using statistical quality control methods as part of the CSO audit of the data collection was considered, but within the timescale available for the tendering process, it was not possible to arrive at realistic tolerance criteria which could form part of a formal contractual agreement. At least initially, the performance criteria have therefore been set in terms of "valid" quotations defined as those which pass the final validation checks and enter the index calculation.

17. The CSO also had to formulate the target sampling plan and specify plans for the transition to probability sampling. The approach to introducing computer-assisted data capture (CADC) had to be clarified. During the bidding proposals were also invited from organisations intending to tender for the work. The CADC issues and the revision of the RPI sampling arrangements formed a particularly important part of the CSO review. The CSO experience from initiating the transition to probability sampling and to CADC is discussed below.

Revision of the RPI Sample

18. The RPI Sampling arrangements involve three dimensions:

- (i) the sampling of geographical locations which have shopping facilities and other outlets providing consumer services;
- (ii) the sampling of outlets in those locations;
- (iii) the sampling of items to be priced in the sampled locations.

The outlet selection and item selection are linked, since the choice of a sampled outlet influences the scope for selecting items. In principle, there are a number of possible strategies for handling the link between the shops and items - a decision was made by the CSO at the outset to use the current method of handling this link by the allocation of grouped price quotation forms to outlets, although it was recognised that this link may ultimately be handled differently under a system of electronic price collection.

19. It was clear that any strategy for moving away from purposive sampling to a statistical probability sample would have to balance the objective of good progress towards the target sample plan with the concern of users about avoiding distortions to the index and to highly sensitive key inflation series. It was decided that the introduction would be phased in over a four year period, with a revised sample of locations leading to enumeration and sampling of outlets in newly selected locations. The sampling of brands and varieties of items would remain a lower priority, although some attempt will be made to develop a quantitative basis for probability sampling of at least some commodity groups, using information supplied by retailers and possibly also additional data on consumer spending.

20. The first priority in the transition to the probability sample is to move to a new set of locations over the next three years, with an initial 5% sample brought into the RPI in 1995 and the remainder in the following two years. The enumeration and sample selection of outlets in the newly sampled locations would take place over the same period and in the following year, the outlets panel in the unchanged locations would be replaced by a probability sample.

21. A practical constraint in devising and implementing the new sample design has been the limited amount of historical data available on price changes by geographical areas, type of location, type of outlet and by brands or particular item varieties. Further research into the impact of these factors on price changes is in progress and this may lead to a further re-balancing and optimisation of the sample. The initial results suggest that whereas geographical location has some impact on the variability of price change, this effect is much more pronounced by type of outlet. The type of location seems to have a relatively minor impact.

22. In sample survey design, the usual approach is to start with the appropriate sampling frame (and preferably one containing for each unit an indicator closely related to the surveyed variable), design optimal allocation and implement it. The application of such an approach to a CPI is not feasible - sampling frame imperfections can be considerable (for example business registers may contain many out of scope shop-type units and also out-of-date information on shops). The size information available may bear little relationship to price changes and estimates of variance of price change may be subject to considerable uncertainty. Against the background of such practical problems, the UK approach has been to use data on consumer spending in devising location samples and to use field enumeration and store classification as a basis for outlet sampling.

RPI Locations Sample

23. The main features of the sampling design are:

- A probability sample of locations based on a sampling frame of over 1900 area units covering the whole of GB;
- A stratified random sample of 176 units drawn as locations for RPI price collection;
- Probability sampling of locations and outlets to be phased in over the next four years (locations over three years);
- Stratification by region and type of shopping facilities (major, district, local);
- Full coverage of major shopping centres and major areas with very large shopping population (of 500,000 or more);
- A systematic approach to major city areas (Central London in first year).

Location Sampling Frame

24. CSO analysis of the main registers of retail outlets available indicated that in order to construct a sampling frame of locations for RPI local price collection a full detailed cluster analysis of CSO local retailing register records would not be necessary. As a satisfactory approximation to such a frame, the CSO used the list of local shopping centre catchments derived from a geographical analysis of branches of multiple retailers. The catchment units are contiguous clusters of postal sectors, broadly representing central shopping areas and the areas where the local shopping population live.

25. The centres are defined at three levels: major, district and local. Of the total of 1926 centres covering the whole of Great Britain, 275 are identified as major because they contain 40 or more "comparison" shops (shops selling e.g. clothing, furniture and consumer durables, but excluding food and other goods and services for which consumers typically shop locally), a further 276 are district centres, containing 15 or more comparison shops and the remainder are local. The local catchments of all of these centres are based on assigning every postal sector in Great Britain to its nearest centre based on drive-time. Clearly these catchments vary greatly in size - for instance, the catchment area for Central London, a major centre, covers 78 postal sectors, while Chigwell and Newbiggin-by-the-Sea are two of 173 local centres which have catchment areas consisting of a single postal sector.

26. The CSO is defining the boundary of each location in terms of postal sectors as the absolute limit of the area in which collection can be carried out, while smaller areas, defined in terms of postal semi-sectors or individual postcodes, will be identified for enumeration and the bulk of the shop collection.

27. As the area unit for Central London is particularly large, has a lot of retail outlets and has a shopping population of around 3.5 million people, the original area unit will be split into three separate areas for price collection (Annex D).

Sample Design: Locations

28. The chosen sample design is a stratified random sample, with stratification by region and location type and size. The area units with shopping population below 10,000 were judged too small to be viable for RPI price collection so were omitted from the sampling frame. Taking collection costs and past experience of

the difficulty of obtaining prices for many items in small shopping centres into account, the minimum realistic cut-off was judged to be at a shopping population of 30,000. As this would lead to the systematic omission of a particular size of location from the sampling frame, and hence be a potential source of bias, a small number of these have been included in the current sample design as a pilot to allow the effect of this stratum on the index to be analyzed.

29. The location categories and total numbers of area units in each category used were:

very large out-of-town shopping centres	5
major centres	
with shopping population > 500,000	20
other major centres	257
district centres	276
local centres	
with shopping population > 30,000	345
local centres	
with shopping population between 10,000 and 30,000	873

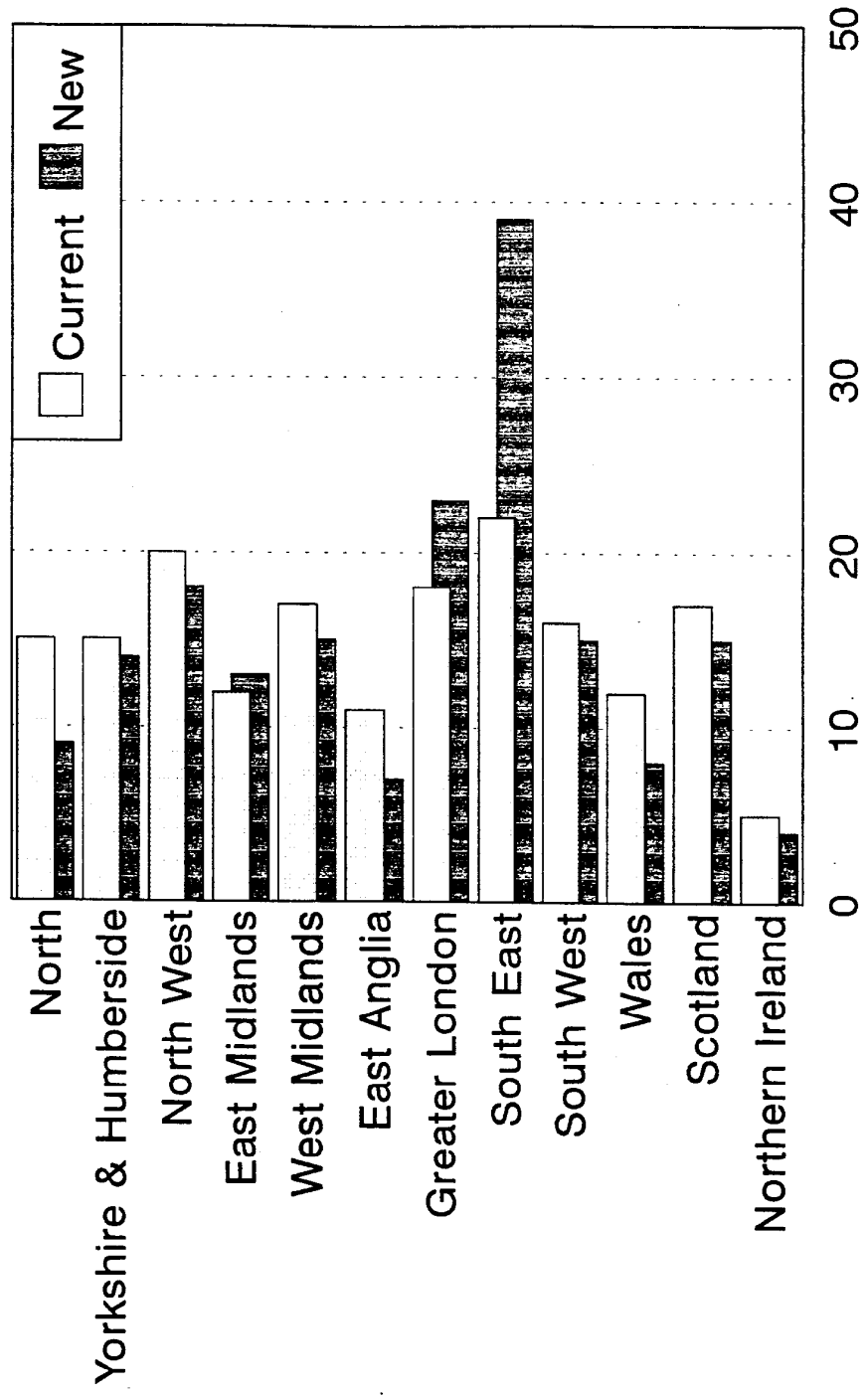
30. The numbers of locations were allocated to regions in proportion to expenditure of index households from the UK Family Expenditure Survey. Within region there are no detailed estimates of expenditure, so total shopping population was used as a proxy for assigning numbers of locations to size classes. The largest two size strata were sampled with certainty, while numbers of locations to be selected in the remaining strata were allocated in proportion to total shopping population. The final sample allocation is shown in Table 1, with Chart 1 showing a comparison with the current allocation by region.

TABLE 1: SAMPLE ALLOCATION - NUMBER OF LOCATIONS BY REGION AND SIZE FOR GREAT BRITAIN

Region	Total Locations for Region	Major Out-of-Town Centres	Major Centres (popn 500000)	Other Major Centres	District Centres	Local Centres	Minor Centres
North	9	1	1	4	1	1	1
Yorkshire & Humberside	14	1	2	7	1	2	1
North West	18	0	2	10	3	2	1
East Midlands	13	0	2	6	2	2	1
West Midlands	15	1	3	7	2	1	1
East Anglia	7	0	2	3	1	1	0
Greater London	23	1	4	11	3	4	0
South East	39	1	0	28	5	4	1
West	15	0	1	10	2	1	1
Wales	8	0	1	4	2	1	0
Scotland	15	0	2	8	2	2	1
Total	176	5	20	98	24	21	8

CHART 1

Number of Locations per Region



31. It must be stressed that, while this is as far as possible an optimal design based on current information, further work is underway to obtain accurate measures of price change variance and identify factors correlated with price change. If this suggests that a significant improvement in efficiency can be made then the final sample design will be reviewed. It is also intended that this further work should lead to more efficient allocation of numbers of prices collected for each section and item.

RPI New Sample for Price Collection in 1995: Outlet Enumeration

32. Probability sampling of outlets will be introduced into the RPI sample in the new locations for RPI price collection introduced in January 1995. As some of the locations are geographically large, the cost of a full enumeration of every retail outlet within each area would be unreasonably high. Boundaries of the main shopping areas within each location have been identified using CSO data and commercially available shopping centre plans, so that enumeration may focus on the places of greatest retailing importance. More than one enumeration area per location is listed as the CSO is concerned that retail parks and other out-of-town retailing, which market intelligence suggests are of increasing importance, are not overlooked in the new outlet selection.

33. Within each location, enumerators will be recording names, addresses and classification of shops based on the existing CSO forms categorisation (Annex A). Floor space will also be recorded as the size indicator. As far as possible, multiples and independents will be treated as separate categories. The data obtained from outlet enumeration will be used for drawing outlet samples by location and item selection will initially be done by linking forms to outlets.

Computer Assisted Data Capture (CADC)

34. As part of the new contractual arrangements, the CSO is planning to use hand-held computers for local price collection (except for items collected by telephone) from January 1995. Several important advantages are expected from the adoption of this technology:

- (i) Reduction in the time taken to make data available for processing in computer readable form;
- (ii) Improved quality in the data by ensuring adequate checking at the point of price collection;
- (iii) Improved control of the collection process.

35. The introduction of this technology follows a feasibility assessment undertaken by the CSO in early 1994. Both the CSO feasibility study and the subsequent bidding process indicated that:

- (i) The use of hand-held computers for RPI collection is feasible and desirable;
- (ii) There is a range of suitable suppliers and hardware but the hardware is still being developed rapidly;
- (iii) The application for retail prices collection is relatively straightforward and software development does not present any particular problems. Bar code readers can offer useful productivity improvements.

36. The CSO feasibility study established three types of hand-held computers - conventional, clam shell and pen machines. Conventional machines are meant to be carried in one hand and present a large keyboard and a small screen to the user directly. Data entry is via the keyboard using the free hand. Clam shell machines have a lid which opens to reveal the keyboard underneath and the screen inside the lid. Both keyboard and screen are reasonably large but the keys may be small. Pen machines are meant to be carried in one hand and show only the screen to the user. Communication is via a "pen" which the user points at the screen to input data. The assessment carried out during the CSO feasibility study examined several suppliers and particular computer models. It concluded that a clam shell type machine is probably most suitable for the RPI application.

37. An initial field test was carried out by the CSO in Spring 1994 using the Hewlett-Packard 95 LX machine with purpose-built simple software written in Lotus macro language. The objective of the test was to establish:

- (i) How acceptable the use of hand-held computers would be to the collectors;
- (ii) How successful it would be in the collection process;
- (iii) How much training would be required and what skills would staff require in order to operate the system successfully.

38. The approach was very much "hands on" by experienced collectors accustomed to paper collection. They commented favourably on the screen size of this type of machine and were content with the keys on the layout. They quickly grasped the basic principles of the software and had few problems with

the menu structures. They were quickly able to input trial data without too many problems and explored the limited amount of data held in the trial system on shops and items.

39. The trial collection was carried out in a single location at the end of March 1994 and this was a particularly instructive time to undertake the test as a number of seasonal clothing items appeared and disappeared, complicating the collection quite considerably and testing the flexibility of the system. As a result of the problems encountered during the trial, a number of standard indicator box codes had to be added part way through the trial to speed up data input. One difficulty with the trial system was that item descriptions had to be typed in and this caused delays additional to those which might be expected under live running. Many of the problems faced in the trial arose more from the difficulties of the collection itself than from the use of the hand held machine and limited flexibility in moving between items and shops.

40. The main concerns of the data collectors were the size of the display and the flexibility and speed of the system. Here the trial system was rather weak and the experience with it highlighted the need for rapid response time. The frequent changes in store layout meant that the idea of ordering the items (and shops) in collection order would help but would not completely resolve the problem. This point was further emphasised by the changes resulting from the seasonal change to the items displayed in the clothing stores.

41. The collectors felt particularly strongly that the small size of the machine was a positive advantage as opposed to the bulky paper forms they were used to handling in some of the outlets. They felt that entering the data onto the keyboard could be easier than writing prices on paper. They also mentioned amending item descriptions as being much easier on the

computer than on a paper system. They felt that a wrist strap or some other device was essential in order to protect the system from accidental knocks when collecting prices in a crowded shop.

42. Overall, the result of the field test was positive and whilst the trial system itself was not adequate, the feasibility study encouraged the CSO to proceed to a further development in partnership with the contractor chosen for the local price collection. A larger pilot with new hardware and software is planned at the time of writing this report and the results will be reported at the meeting in Ottawa.

Conclusion

43. Price measurement errors and systematic biases which may result from CPI sampling arrangements represent only one part of the spectrum of all the potential sources of CPI bias. It has not been possible to quantify their relative importance but there are indications that both CADC and probability sampling can play an important role in improving CPI data quality. This report of the UK experience is intended to help to contribute to the international debate about these issues. The UK CSO would be interested to learn more of the experience of other countries working in these areas.

PRICE COLLECTION FORM NUMBERS AND DESCRIPTIONS

Meat

- 1 Fresh Beef and Lamb
- 2 Cooked Meats, Meat Pies and Pate
- 3 Fresh Bacon, Pork and Chicken

Fish

- 4 Fresh Fish

Bakery Products

- 5 Bread
- 6 Cakes

Fruit and Vegetables

- 7 Potatoes
- 8 Fresh Vegetables
- 17 Fresh Fruit
- 18 Seasonal Fresh Fruit (Strawberries, Plums and Nectarines)

Dairy Products

- 9 Milk, Yoghurt, Cream, Fromage Frais and Eggs
- 10 Butter, Margarine, Cheese and Coleslaw

Groceries

- 11 Coffee, Tea, Sugar and Hot Milk Drink
- 12 Fizzy Drinks, Fruit Juice and Mineral Water
- 13 Sweet and Savoury Biscuits
- 14 Cereals, Potato Crisps and Peanuts
- 15 Flour, Rice, Pasta, Dried Fruit, Jam, Marmalade, Stock Cubes, Salad Cream, Tomato Ketchup and Pickle
- 16 Cooking Oil, Packet Soup, Custard Powder, Vinegar, Powdered Milk, Cook-in-Sauce and Ready Meals
- 19 Canned Meat & Fish
- 20 Canned Vegetables, Pasta, Soup and Fruit

Frozen Food

- 21 Frozen Fish, Beefburgers, Lamb and Poultry
- 22 Frozen Vegetables, Ready Meal, Pizza and Cake, and Ice Cream

Confectionery

- 23 Branded Sweets/Confectionery
- 24.1 Branded Sweets/Confectionery
- 24.2 Choc-Ice

Alcohol "Off Sales"

- 30 "Off Sales" - Beer, Lager and Spirits
- 31 "Off Sales" - Sherry, Vermouth, Table Wine and Cider

Tobacco

- 32 Cigarettes
- 33 Tobacco and Cigars

Household Consumables

- 49 Household Cleaning Materials
- 50 Tissues, Toilet Rolls, Cooking Foil, Light Bulbs and Dustbin Liners

Household Goods

- 47 Crockery, Cutlery, Glassware, Casserole Dish, Saucepan, Washing-Up Bowl

Chemist's Goods

- 63 Toiletries, Tampons and Disposable Nappies
- 64 Disprin, Antiseptic Cream, Indigestion Tablets, Soap, Condoms, Disposable Razors, Multivitamins and Contact Lens Solution

Stationery

- 48 Writing Pad, Envelopes, Ballpoint Pen and Calculator

Clothing and Footwear

- 53 Men's Suit, Coats, Trousers, Knitwear and Shirts
- 54 Men's Casual Shirt, T-Shirt, Tracksuit Bottoms, Underwear, Handkerchief and Tie
- 55 Women's Suit, Skirts, Coats, Blouses and Jacket
- 56 Women's Dresses, Knitwear, Trousers, T-Shirt and Sweatshirt
- 57 Women's Underwear, Nightwear, Swimwear, Leggings, Tights and Gloves
- 58 Boy's Shirts, Jersey, Anorak, Jeans and Shorts and Girl's Skirts
- 59 Girl's Dresses and Underwear, Child's Overcoat, Dungarees and Pyjamas and Babygro
- 60 Adult Footwear
- 61 Children's Footwear

Personal Goods

- 62 Wallet, Umbrella, Handbag and Suitcase
- 74.1 Clock, Watch and Gold and Silver Jewellery
- 42.3 Knitting Wool

Furniture and Furnishings

- 40 Bedroom Furniture
- 41 Settee, Armchair, Dining Room Table & Chair, Sofabed and Coffee Table
- 42.1 Pushchair and Cot
- 42.2 Kitchen Unit and Sink
- 43 Vinyl Floor Covering and Carpet
- 44 Curtains, Bedding, Towel and Shower Curtain

Household Appliances

- 45 Hairdryer, Telephone, Plug, Batteries, Vacuum Cleaner, Iron and Kettle
- 46 Electric Cooker, Washing Machine, Tumble Dryer, Fridge/Freezer, Microwave Oven and Dishwasher

Audio Visual Products

- 72 Colour Televisions, Video Recorder, Compact Disc Player and Camcorder
- 73 Personal Stereo, Radio Cassette Player, Midi Hi-Fi and Calculator
- 75.1 Camera
- 75.2 Colour Photographic Film and Developing
- 80 Blank and Pre-Recorded Audio and Video Cassettes and Compact Disc

Leisure Goods

- 66.3 Sleeping Bag
- 75.3 Adult Bicycle
- 76 Toys and Games
- 74.2 Golf Balls, Squash Racquet and Darts

DIY Materials

- 37 Wallpaper, Paste, Paint, Filler, Varnish and Brush
- 38 Power Point, Door Handle, Chisel, Power Drill, Wood, Shower Curtain and Lawnmower

Motoring Accessories

- 70.1 Car Polish, Oil Filter and Windscreen Wiper Blade
- 70.2 Child's Car Safety Seat

Alcohol on Licensed Premises

- 28 Licensed Premises - Beer, Lager and Cider
- 29 Licensed Premises - Spirits, Crisps, Peanuts, Filled Roll and Hot Meal

Catering

- 25 Restaurant Meals
- 26.1 Take-away Beefburger
- 26.2 Take-away Coffee, Tea and Soft Drinks
- 26.3 Take-away Sandwich
- 27.1 Take-away Fish and Chips
- 27.2 Ethnic Take-away
- 27.3 Canteen Meals
- 82 Restaurant Meals with Wine

High-Street Services

- 52.1 Shoe Repairs
- 52.2 Launderette Charge
- 52.3 Dry Cleaning
- 52.4 Man's Haircut
- 65 Women's Hairdressing
- 66.1 Delivery of Flowers
- 67.1 Spectacle Frames
- 67.2 Eyesight Test
- 78.4 Video Film Rental

Leisure Services

- 66.2 Squash Court Booking
- 78.1 Bingo Admission
- 78.2 Cinema Admission
- 78.3 Theatre Admission
- 81.1 Swimming Pool Admission
- 81.2 Leisure Centre Membership and Admission

Petrol and Oil

- 71 Petrol and Oil

Gardening Products

- 77 Plants, Seeds, Fertiliser, Compost, Gardening Gloves, Spade and Lawnmower

Pet Care

- 79.1 Pet Food, Cat Litter and Dog Bowl

Other Services

- 34 Rent for Unfurnished Property
- 35 Rent for Furnished Property
- 36.1 Decorator's Services
- 36.2 Plumber's Services
- 36.3 Electrician's Services
- 39 Coal
- 51.1 Domestic Help
- 51.2 Playgroup Fees
- 51.3 Boarding Kennel Fees
- 51.4 Child Minder's Fees
- 68.1 Car Repair and Service
- 68.2 Car Tyre, Exhaust and Battery
- 69.1 Car Parking
- 69.2 Car Hire
- 69.3 Van Hire
- 69.4 Driving Lesson
- 79.2 Veterinary Services

Retail Prices Index
CENTRAL STATISTICAL OFFICE

IN CONFIDENCE

P.O. Box 118,
Watford, Herts. WD1 7SE

Office name -----

Office code -----

Description of item/brand etc.	Ref. Number	Base		02	03	04	05	06	07	08	09	10	11	12	01
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
		£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P
<p>Shop code <input type="text"/> <input type="text"/> Shop name -----</p>															
Cost of sending one red rose to Watford (by Interflora or similar)		520310	:	:	:	:	:	:	:	:	:	:	:	:	:
		IND													
<p>Shop code <input type="text"/> <input type="text"/> Shop name -----</p>															
Squash court booking, evenings, per hour (if different time convert to hourly rate)		640215	:	:	:	:	:	:	:	:	:	:	:	:	:
		IND													
<p>Shop code <input type="text"/> <input type="text"/> Shop name -----</p>															
Sleeping bag		630317	:	:	:	:	:	:	:	:	:	:	:	:	:
		IND													

MONTH	ITEM	COMMENTS	MONTH	ITEM	COMMENTS

IN CONFIDENCE

Retail Prices Index
Central Statistical Office

P.O. Box 118,
 Watford, Herts.

Office name

Shop code

WD1 7SE

Shop name

Office code

Description of item/brand etc.	Ref. Number	Base	02	03	04	05	06	07	08	09	10	11	12	01
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
		£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p	£ : p
Cooked meat Ham, not shoulder, per 1/4 lb	211009	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
Luncheon meat (sliced) per 1/4 lb	211005	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
Pork pie, individual (not buffet)	211010	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
Garlic sausage (sliced) per 1/4 lb	211008	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
Steak and kidney pie, individual	211011	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
Liver pate (per 1/4 lb/100g. approx)	211012	:	:	:	:	:	:	:	:	:	:	:	:	:
	IND													
	IND													
	IND													
	IND													
	IND													
	IND													
	IND													

RPI 02 1994

COOKED MEATS

SE002A

Retail Prices Index
CENTRAL STATISTICAL OFFICE

IN CONFIDENCE

P.O. Box 118,
Watford, Herts. WD1 7SE

Office name -----

Office code -----

Description of item/brand etc.	Ref. Number	Base		02	03	04	05	06	07	08	09	10	11	12	01	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
		£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	
Shop code <input type="text"/> <input type="text"/> <input type="text"/> Shop name -----																
Gentlemans wallet	520102	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Ladies umbrella, folding	520103	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Ladies handbag	520109	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Suitcase, large	520111	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Shop code <input type="text"/> <input type="text"/> <input type="text"/> Shop name -----																
Gentlemans wallet	520102	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Ladies umbrella, folding	520103	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Ladies handbag	520109	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															
Suitcase, large	520111	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
	IND															

Retail Prices Index
CENTRAL STATISTICAL OFFICE

IN CONFIDENCE

P.O. Box 118,
Watford, Herts. WD1 7SE

Office name -----

Office code -----

Description of item/brand etc.	Ref. Number	Base													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	01	
Shop code		Shop name	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P	£ : P
Main course of restaurant meal (1st choice) please specify.....	220108		:	:	:	:	:	:	:	:	:	:	:	:	:
	IND														
Sweet course of restaurant meal, please specify.....	220109		:	:	:	:	:	:	:	:	:	:	:	:	:
	IND														
Cup of coffee in restaurant	220104		:	:	:	:	:	:	:	:	:	:	:	:	:
	IND														
Main course of restaurant meal (2nd choice) please specify.....	220110		:	:	:	:	:	:	:	:	:	:	:	:	:
	IND														
Bottle of wine, 75cl bottle	310416		:	:	:	:	:	:	:	:	:	:	:	:	:
	IND														

ANNEX C - List of items and outlets where prices
may be obtained by telephone (1994 collection)

Items	Outlets
=====	=====
Adult admission to Bingo	Bingo halls
Car park charges	Car parks
Child minder fees	Child minders
Cinema adult admission	Cinemas
Coal	Coal merchants
Shoe repairs	Cobblers (shoe repairers)
Decorating charges	Decorators
Driving lessons	Driving schools
Dry cleaning charges	Dry cleaners
Electrical service charges	Electricians
Rents	Estate agents (or others providing rents)
Colour film, developing and printing)	Film developers
Flower dispatch	Florists
Petrol and oil, car servicing and repairs, replacement exhausts and batteries	Garages
Hairdressing & haircuts	Hairdressers, barbers
Domestic help charges	Jobcentres or others
Kennel fees	Kennels
Service washing	Launderettes
Leisure centre admission	Leisure centres
Eye tests	Opticians
Playgroup fees	Playgroups
Plumbing charges	Plumbers
Meals out items	Restaurants and canteens
House conveyancing fees	Solicitors/conveyancers
Court hire charges	Squash courts/Leisure centres
Swimming admission charges, adult	Swimming pools
Theatre, adult admission	Theatres
Van hire charges	Van hire centres
Video rentals	Video rental shops