# Improved methods for the evaluation of the composition and quantity of household goods 

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To lighten the response burden of the participants in the Icelandic household budget Survey we allowed the use of bar-code cash receipts from shops. By that method we were taking into account the fact that most of the major stores give their costumers receipts that show the name, brand and in many cases the weights of the goods bought. An example of these receipts is shown in table 1 .

The 5 biggest supermarket chains in Iceland have a market share of around $75-80 \%$ of the total consumer food market. They all use bar-code cash receipts except for one supermarket chain that has about 5\% market share.

The results far exceeded the expectations. Of all transactions recorded nearly $41 \%$ were drawn from these receipts while the ratio was $53 \%$ in the category food and non-alcoholic beverages. In table 2 the results are shown according to the COICOP classification.

The quality of the bar-code cash receipts varies but on the whole is fully satisfactory. It is essential that the bar-code cash receipts are well itemised.

This method allows much more accurate estimates of the composition and quantity of household goods than otherwise would be the case. This method also gives precise information about the goods purchased and brand of goods and effectively replaces the method previously used where that information came directly from the supermarkets (point-of-purchase method).

The utilisation of this method also enables precise information to be gathered about consumer activities at much lower effort and cost than previous methods and shows a link between the goods purchased and the buyer.

The results can also be used to verify the market shares of supermarkets and confirm other results on the evaluation of market shares deduced from the VAT figures obtained from the tax authorities hence, it facilitates the evaluation of market shares of the supermarkets. This information is used for evaluating the weights of the food stores for calculations of average prices in the CPI.

All doubts about using this method especially about people losing their receipts, proved wrong. Of all the diaries received, the bar-code cash receipts were seldom missing. This demonstrates the feasibility and accuracy of using bar-code cash receipts for the evaluation of composition and quantity of household goods in CPI.


Table 2. Items recorded by sources in the 1995 Icelandic household budget survey

| COICOP |  | In percentage of total records from |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | diaries | bar-code cash receipts | \% of total records |
| 1 | Food and non-alcoholic beverages | 47,5 | 52,5 | 63,9 |
| 11 | Food | 45,5 | 54,5 | 55,5 |
| 111 | Bread and cereals | 50,5 | 49,5 | 11,7 |
| 112 | Meat | 38,4 | 61,6 | 4,9 |
| 113 | Fish | 49,6 | 50,4 | 1,3 |
| 114 | Milk, cheese and eggs | 40,5 | 59,5 | 14,8 |
| 115 | Oils and fats | 40,1 | 59,9 | 1,7 |
| 116 | Fruit | 43,2 | 56,8 | 4,2 |
| 117 | Vegetables, including potatoes and other tubers | 39,2 | 60,8 | 6,2 |
| 118 | Sugar, jam, honey, syrups, chocolate and confectionery | 65,5 | 34,5 | 6,8 |
| 119 | Food products n.e.c. | 37,6 | 62,4 | 3,9 |
| 12 | Non-alcoholic beverages | 60,3 | 39,7 | 8,5 |
| 121 | Coffee, tea and cocoa | 42,1 | 57,9 | 1,0 |
| 122 | Mineral waters, soft drinks and juices | 62,9 | 37,1 | 7,4 |
| 2 | Alcoholic beverages and tobacco | 81,0 | 19,0 | 3,2 |
| 3 | Clothing and footwear | 85,3 | 14,7 | 2,0 |
| 4 | Housing, water, electricity, gas and other fuels | 93,2 | 6,8 | 0,8 |
| 5 | Furnishing, household equipment | 52,3 | 47,7 | 6,5 |
| 6 | Health | 90,6 | 9,4 | 1,1 |
| 7 | Transport | 99,2 | 0,8 | 3,4 |
| 8 | Communications | 99,6 | 0,4 | 0,4 |
| 9 | Recreation and culture | 89,4 | 10,6 | 6,5 |
| 10 | Educational services | 100,0 | - | 0,0 |
| 11 | Hotels, cafés and restaurants | 95,0 | 5,0 | 5,5 |
| 12 | Miscellaneous goods and services | 74,4 | 25,6 | 5,2 |
|  | Total | 59,4 | 40,6 | 100,0 |

