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

Rósmundur Guðnason

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 1. Bar-code cash receipt

Nóâtún Austurveri Háaleitisbraut 68 420987-1109

Name of the shop

DAGS: 30-12-1995 KL: 12:14 KASSI: 0003 FNR: 03035491 STARFSM: GUDBJöRG LáRUSDÓTTIR Goods Quantity

Goods	Quantity	Price	
VöRULÿSING	STK	VERD	
BUGLES 175 gr. CHEERIOS 425 gr.	1 1	166,00 C 215,00 C	Cereals
NYMJóLK NYMJóLK	1 1	64,00 C 64,00 C	Milk
NYMJóLK NYMJóLK	1 1	64,00 C 64,00 C	Date:
NYMJóLK	1	64,00 C	Dagsetning 30 desember 1995
ORM. ASPASSUPA LJóMA SMJöRLíKI PAMPERS MAXI-BOY 8-1	1 1 1	114,00 C 112,00 C 979,00 B	Goods Price Krönur Keypt I Nóatuni 7.304
RIFFLUR M/BYRDUM RJó SS WALDORFSALAT SS WALDORFSALAT	1 1 1	159,00 C 236,00 C	
ORGINAL HRÍSGRJON BARILLA FUSILL BUCAT	1 1	236,00 C 159,00 C 120,00 C	
PICKWICK EARL GREY PICKWICK SOLBERJA TE RJ6MI	1 1 1	152,00 C 159,00 C 262,00 C	
SS PEPPERONI SNEITT BúRFELLS SVÍNASKINKA JóGURT M/HMEFUM & KA	1 1 +	255,00 C 351,00 C 99,00 C	
LIBBYS T6MATS6SA PLA S.S.SK6LAKÆFA	1 1	108,00 C 147,00 C	Record in the diary
BARNATANNBURSTI F.BERíO óLíFUOLfA 0.210 KG. VIGTUD á 279.00 K	1 1 R/KC	129,00 B 298,00 C	
BLADLAUKUR/PÓRRA FAGISKÓLFA M/GOMMÍKA AUSSIE CUSTARD APPLE	1 1 1	59,00 C 178,00 B 609,00 B	
0.370 KG. VIGTUD á 597.00 K. SVEPPIR 0.200 KG. VIGTUD á 79.00 KR	R/KG 1	221,00 C	Mark 2000 lea @ 70 lea /lea
LAUKUR	1	16,00 C	Mushrooms .200 kg @ 79 kr./kg
0.320 KG. VIGTUD á 168.00 K. BANANAR ÁGÆTI 1.KG. KARTÖFLU ÁGÆTI 1.KG. KARTÖFLU PEPSI PEPSI PEPSI	1 1 1 1 1 1	54,00 C 289,00 C 149,00 C 139,00 B 139,00 B	
SEVEN UP CRM. ASPASSúPA NESQUIK K6K6MALT ST6R PLASTPOKI ST6R PLASTPOKI ST6R PLASTPOKI	1 1 1 1 1	129,00 B 114,00 C 199,00 B 10,00 B 10,00 B 10,00 B	
43 STK. SAMíALS VISA NúMER: VSK B er 24,50 VSK B er 14,00 Pökkum väskipti Nóâtún Austurveri . opin 10	% n	7.304,00 $7.304,00$ $2.670,00 = 525,42$ $4.634,00 = 569,00$	Total amount recorded in the diary Form of payment VAT rate

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

		In percentage of total records from		
COICOP		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