

Food Subsidy and the Social Assistance Program in Egypt; Targeting and Efficiency Assessment

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Abstract

This study assesses targeting efficiency and effectiveness of the two most important welfare programs in Egypt, the food subsidy program and the Social Assistance Program. The study uses two sources for data: field data for seven governorates in Egypt with the highest poverty ratio, and published data. It finds that the food subsidy program is fairly inefficient in targeting the lower income groups, especially in rural areas. Also, it is not well targeted on the governorates' level. Upper Egypt governorates with the highest poverty ratios take less food subsidy, as compared to urban governorates with the lowest poverty levels. The study finds, also, that the Social Assistance Program is insufficient to cover the minimum cost of living for the lowest income groups in Egypt, and it is not well targeted on the governorates' level, given their relative poverty levels. Finally, assessing the impact of in-kind subsidy vis-à-vis cash subsidy on poverty in Egypt, it has been found that in-kind subsidy is preferable to cash subsidy, since with the high inflation rate in the country, the former provides the poor with a set amount of necessary food commodities, while the purchasing power of cash transfers will deteriorate with the rise in prices. However, the distribution system of the in-kind subsidy has to be structurally revised to well-target the poor and the low-income people in Egypt.

Keywords: Food Subsidies, Social Assistance Program (SAP), Egypt

JEL Classification: H20, I38, O22

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By

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I- Introduction:

Poverty is, on average, 25 percent on the country level according to official statistics, and reaches 66 percent in the South (Upper Egypt) in 2010/11. Among the important policies that the Government of Egypt (GOE) applies to combat poverty are the food subsidy system and the social assistance program.

The objective of this study is twofold: first, to assess the impact of these two social policies on the poor with respect to targeting and efficiency in reducing their cost of living, and second, examining the pros and cons of substituting cash food subsidy instead of the current in-kind food subsidy system in Egypt, which is a big ongoing debate among international organizations and policy makers.

Two data sources have been used in the assessment: field work data and published data. Field work has been conducted in seven Egyptian governorates in the period October - November 2009². Those governorates have been chosen according to two criteria: First, the different geographic locations in the country, represented by Urban governorates, Lower-Egypt governorates, and Upper-Egypt governorates, and second, the relatively high poverty ratio. According to these criteria, the seven chosen governorates are: Menya, Assiut and Sohag in Upper-Egypt, Sharkia and Kafr-El-Sheikh in Lower Egypt, Mersa Matrouh for remote Border governorates and Cairo for Urban governorates³. The study consists of four parts, including the Introduction which forms part one. Part two describes the structure and the evolution of the food subsidy system in Egypt, and its assessment. Part three discusses the Social Assistance Program (SAP) with respect to its structure and development over the last ten years, and its assessment. The fourth part is on the pros and cons for

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² There are 27 Governorates in Egypt.

³ Cairo may not have a higher poverty ratio as compared to other Urban governorates but, as the capital of the country, we thought that it has to be included to find out its relative position in the subsidy issues discussed.

substituting cash subsidy for the current in-kind food subsidy in Egypt, given the characteristics of the economy.

II- Food Subsidy in Egypt⁴:

The food subsidy targets the poor and the low-income population. The food subsidy system in Egypt includes two main subsystems: (1) ration card (RC) that offers eligible households specific quotas of subsidized commodities (sugar, oil, rice, and tea); and (2) Baladi Bread (BB)⁵, which is distributed through the market outlets with no distinction among the buyers (first come, first serve).

1- Structure and Evolution of the Food Subsidy:

The history of the subsidy system in Egypt dates back to the mid 1940's when the first program was initiated after World War II to provide everyone (not just target groups) with necessities such as sugar, kerosene, coarse cotton textiles, edible oil, and tea. Since then, the food subsidy system has gone through several phases during which significant changes have been undertaken. The last three decades have witnessed several reform initiatives to better target poor and low-income people and to improve the efficiency of the system. However, it is still widely believed that the current food subsidy system is inefficient and needs further reforms.

Throughout Nasser's years, allocations for food subsidies were modest since prices were already controlled by the government, and the ration-card (RC) system was mainly aimed to protect all Egyptians from commodity shortages. Food subsidies grew significantly in scope and cost under President Sadat⁶, when price controls became less effective. Gradually, more commodities were introduced to the subsidy system until it reached 18 items. Following the recommendation of the IMF and the WB, the Government of Egypt (GoE) announced in January 1977 a drastic reduction in the food subsidy, including the Baladi Bread (BB) subsidy. The result was the break-out of massive popular riots, which made the government back down on these measures. By 1980/81, total expenditures on food subsidies jumped to almost 14

⁴ Unless otherwise stated, this part draws from: Al-Araby (2010).

⁵ BB is a local type of bread widely used by the Egyptians.

⁶ Sadat took power in 1970.

percent of total government expenditure (L.E. 1.4 billion) compared to only 0.2 percent (LE 3 million) in 1970/71.

When President Mubarak took office in 1981, he adopted a gradual reform strategy of slow transformations in the subsidy system to reduce its amount, while avoiding political unrest, like the one that took place in 1977. Several measures were taken in this respect in 1981 and 1989 regarding the RC system. These include the reduction of the number of commodities covered by the RC and the reduction in the number of the RC holders.

For BB, which is heavily subsidized, several policy measures were taken to reduce its subsidy burden. Those measures include introducing a better quality BB with the increase in its price from 1-piaster a loaf to 2-piasters, and then to 5-Piasters, which is the current price of BB. The subsidy-reduction measures include, also, the reduction of the 5-piasters BB loaf in weight and size, and using wheat-maize flour mix in its production. All along BB quality kept deteriorating. The result of these RC and BB measures has been a significant decline in food subsidy expenditure from almost 14 percent of total government expenditures in 1980/81 to 5.6 percent in 1996/97. (WFP, 2008, and Ahmed et al., 2001, as cited in El-Araby, 2010). From this time on, the food subsidy in Egypt has been fluctuating around this figure, depending mainly on international crises (like the food crisis in 2007 and the financial crisis in 2008), and on domestic policies (like lifting the hold on adding the new-born children to the RC system that stayed 19 years, from 1989 to 2008). The food subsidy reached 6.1% of total government expenditure in 2008/09. The BB subsidy has had always the largest share in food subsidy in Egypt.

2- Assessment of the Food Subsidy:

The RC and the BB subsidy systems will be assessed from a targeting perspective with respect to the efficiency of allocating the subsidy to the necessary consumer goods of low-income people (the target group), and the efficiency of the distribution mechanism of the BB and the RC commodities to this target group. Three criteria will be applied in this respect: (a) the necessity of the BB and the RC commodities as consumer goods; (b) the importance of the BB and the RC commodities in the budget of the poor and the low-income (expenditure) people; (c) the efficiency of the

distribution mechanism of the BB and the RC commodities in reaching the target group (poor and the low-income households).

Targeting Assessment of the BB and the RC Commodities:

To assess the efficiency of the BB and the ration-card system from a “targeting perspective”, three questions will be addressed: How necessary are the subsidized commodities as consumer goods? How important are the subsidized commodities to the target group, the poor and the low-income people in Egypt? How efficient is the operation of the system in reaching the poor and the low-income people in Egypt? Households Income, Expenditure and Consumption Survey (HIECS) (2004/05) data will be used in answering those questions⁷.

To answer the first question, the expenditure and price elasticities of the five subsidized items (BB, rice, edible oil, sugar, and tea) have been estimated using the 2004/05 HIECS data and the following demand function:⁸

$$\text{Log } X_{ij} = a + b \log Y_j \quad (1)$$

Where X_{ij} refers to the weighted average expenditure of the household on the i^{th} commodity in the j^{th} expenditure interval; Y_j refers to total weighted expenditure per household in the j^{th} expenditure interval. The weights used are the percentage of households in the different expenditure brackets⁹.

Table (1)
Expenditure Elasticities 2004-05

	Baladi Bread	Edible oil	Sugar	Rice	Tea
Urban	0.852	0.795	0.793	0.783	0.773
Rural	0.443	0.663	0.649	0.801	0.538

Source: Estimated using equation (1) and the data shown in Tables 1.B-1 & 1.B-2 in Annex 1.B; see Al-Araby (2010).

⁷ Those are the unpublished data of the HIECS, which were provided by the Central Agency for Public Mobilization and Statistics (CAPMAS).

⁸ Five different forms of the demand function were tried following Korayem (2000), but the log-log was chosen based on the goodness-of-fit criteria (Al-Araby, 2010). For more details, see Annex 1.A.

⁹ The weights are shown in Tables 1.B-1 and 1.B-2 in Annex 1.B.

As table (1) shows, the expenditure elasticities of all subsidized items in both urban and rural areas are positive and less than one, indicating that these items are necessary normal goods.

To estimate the price elasticities of the five commodities, the following formula has been used:¹⁰

$$PE_i = -K_i EE_i \quad (2)$$

Where PE_i is the price elasticity of the i^{th} commodity, taking into account only the expenditure effect of a price change; K_i is the average propensity to spend on the i^{th} commodity; EE_i is the expenditure (or income) elasticity of the i^{th} commodity.

Tables (1.B-3) and (1.B-4) in Annex 1.B include the estimated price elasticities of the five subsidized commodities in both urban and rural areas in the different expenditure brackets. As shown in these tables, the price elasticities of all commodities are quite small, indicating that these commodities are necessary goods for both urban and rural consumers. As expected, the absolute values of price elasticities for the five commodities are slightly higher for lower-expenditure groups because, even with the price increase of those basic commodities, they have to buy a certain quantity of them to satisfy their family needs. This is expected to be at the expense of lowering their consumption of other goods and services, given their small budget.

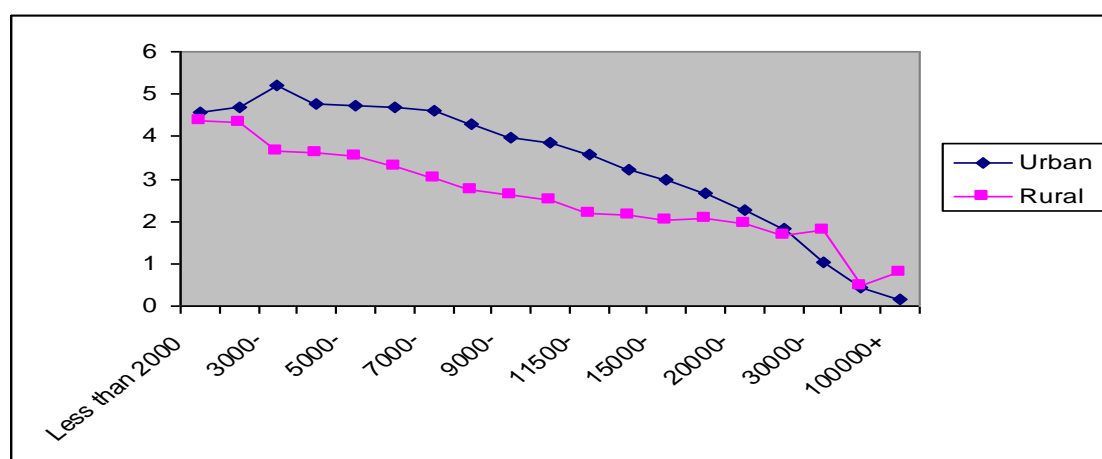
To assess the importance of subsidized commodities to the poor and the lower-income people in Egypt, the average household expenditure on the subsidized food commodities as a percentage of total food expenditure has been calculated for the different expenditure brackets, using the 2004/05 HIECS data. The higher the relative share of the household budget spent on these commodities in the low expenditure brackets, the more the poor and low-income people in general are benefiting from the food subsidy. As shown in Tables (1.B-5) and (1.B-6) in Annex 1.B, urban and rural households in the lower expenditure brackets allocate larger proportion of their total food expenditures to the five subsidized food items as compared to those in the higher brackets. For urban households, the average ratio of expenditure on the five subsidized

¹⁰ Since the substitution effect cannot be separated from other factors, this formula takes into consideration income effect only, assuming that the substitution effect is zero. For more details on the foundation of this formula, see Korayem (2000).

food commodities to total food expenditure in the three lowest expenditure brackets – less than LE 4000 a year – are 7.6 %, as compared to a ratio of 0.47% in the highest two expenditure brackets, LE 75000 and more¹¹. In the rural sector, households’ ratio of expenditure on the BB and the four RC subsidized food commodities to total food expenditure in the three lowest expenditure brackets (less than LE 4000 a year) is 7.25%, as compared to a ratio of 1.2% for the rural households in the two highest expenditure brackets, LE 50000 and more¹². This confirms that subsidized food items are more important in the budgets of lower-expenditure households as compared to those with higher expenditure. Figures (1) and (2) show these results.

An important criterion for evaluating the efficiency of the subsidy system is whether this system caters to the right target group or not. To answer this question, we shall examine the distribution of the five subsidized commodities to low-, middle-, and high- income (expenditure) households in the urban and rural sectors and, also, the distribution of the RCs, the number of the RC beneficiaries, the wheat flour quota distributed to the poor, and the BB bakeries on the governorate and regional levels, given the state of poverty in the governorates.

Figure (1)
Average Household Expenditure on Baladi Bread as (%) of Total Food & Beverage Consumption in Urban and Rural Sectors

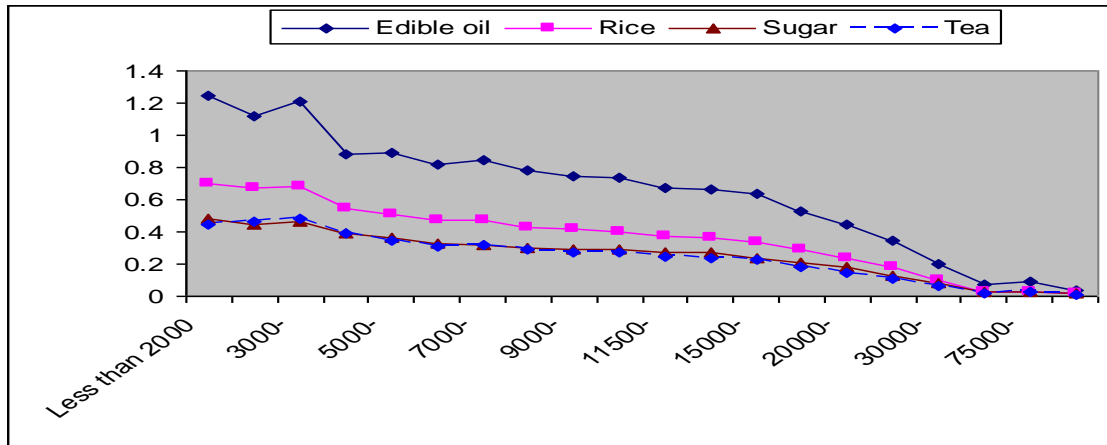


Source: Derived from Tables 1.B-5 & 1.B-6 in Annex 1.B.

¹¹ Calculated from Table 1.B-5 in Annex 1.B as the summation of the expenditure ratios of the five commodities in each of the three lowest expenditure brackets, divided by 3 ($= (7.43 + 7.38 + 8.04) / 3$), to get the average expenditure ratio for the three lowest expenditure brackets. For the highest two expenditure brackets, the average expenditure ratio for the five subsidized commodities is calculated as: $(0.67 + 0.26) / 2$.

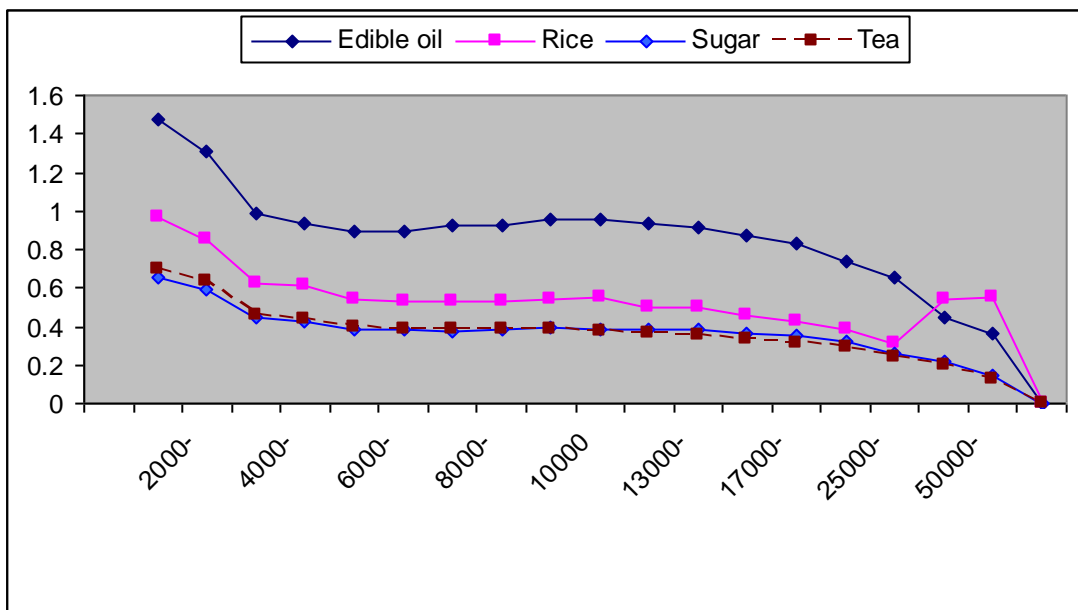
¹² Calculated from Table 1.B-6 in Annex 1.B by the same way as in the urban sector (see footnote above).

Figure (2)
Average Household Expenditure on Ration-Card Items as (%) of Total Food & Beverage Consumption (%)
(a) Urban



Source: Derived from Table 1.B-5 in Annex 1.B.

(b) Rural



Source: Derived from Table 1.B.6 in Annex 1.B.

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Table (2)
The Deciles' Distribution of Household Total Expenditure in Urban and Rural Sectors in Egypt, 2004/05

Household Distribution Deciles	Relative Expenditure Share (Urban)	Relative Expenditure Share (Rural)
I	3.3	4.3
II	4.8	5.7
III	5.9	6.9
IV	6.7	7.9
V	7.7	8.8
VI	8.6	9.7
VII	9.9	11.0
VIII	11.6	12.2
IX	14.7	14.2
X	26.9	19.8

Source: Calculated from Tables 1.B-1 & 1.B-2 in Annex 1.B; see Al-Araby (2010), Table 3.

To examine the distribution of the BB and the RC commodities to the low-, middle-, and high-income (expenditure) households, the decile distribution of households total expenditure in urban and rural sectors in Egypt in 2004-2005 is estimated first (Table 2), then the three income (expenditure) household groups are defined next. The differentiation between low-, middle-, and high-income (expenditure) groups is based on the equal-income distribution share as the measurement norm¹³, specifying the middle-income (expenditure) households as those falling around the equal-income (expenditure) distribution share, which is 10% of national income (total households' expenditure) for the decile distribution. Accordingly, the low-income (expenditure) group is defined as the household's decile whose relative share in national income (total expenditure) is less than 8% for each decile; the middle-income (expenditure) group is those household's deciles whose relative share in national income (total expenditure) ranges between 8% and 12% of national income (total expenditure) for each decile; and the high-income (expenditure) group includes the household deciles whose relative share in national income (total

¹³ Based on the equal-income distribution concept, income is equally distributed among the population if a given percentage of the population receives an equal percentage of national income.

expenditure) is 12% and more for each decile¹⁴. Applying this definition to the decile distribution in Table 2, one finds that the low-expenditure group includes 50% of households in urban sector and 40% in rural sector, the middle-expenditure group includes 30% of the households in both urban and rural sectors, and the high-expenditure group consists of 20% of households in the urban sector and 30% in the rural sector.

Looking at the distribution of the subsidized commodities to the three household groups in both sectors in 2004 / 05, one finds that in the urban sector (Table 3), 46.4% of BB is allocated to the low-expenditure households group, 34.5% to the middle-expenditure group and 19.2% to the high-expenditure group. This means that 81% of the BB is allocated to the low- and middle-expenditure urban households (the target group) in Egypt, which implies that the BB subsidy waste is around 19% in the urban sector. For the RC commodities, around 45% of each of the subsidized commodities (edible oil, sugar, rice and tea) is distributed to the low-expenditure households' group, around 35% to the middle-expenditure group, and around 19% to the high-expenditure group. This implies that about 80% of the RC subsidy is directed to the target group (low- and middle-expenditure households) in the urban sector and, hence, subsidy waste is about 20%.

On the other hand, in the rural sector, targeting of the subsidized commodities is considerably inefficient. As shown in Table 4, 33% of BB is distributed to the low-expenditure rural households' group as compared to 31% to the middle- and 36% to the high-expenditure households' group. The same targeting inefficiency applies to the four RC commodities. Around 27% of each of the RC commodities is allocated to the low-expenditure rural households' group, around 31% of each commodity is allocated to the middle-expenditure group, and around 41% is allocated to the high-expenditure group. This means that only about 64% of BB and 58% of the RC commodities are allocated to the low- and middle-expenditure households in the rural sector, implying a subsidy waste of about 1/3 for BB (36%) and 42% for the RC commodities. One may conclude that the subsidized commodities are relatively efficiently distributed in the urban sector as compared to the rural sector, where relatively large shares of BB and RC subsidies are allocated to the rich households.

¹⁴ For more details on the methodology, see Korayem (2002).

Table (3)
Decile Distribution of Households Expenditures on the Subsidized Commodities
In the Urban Sector in Egypt, 2004-2005

Household Distribution Deciles	Bread	Edible oil	Sugar	Rice	Tea
I	6.45	6.66	7.12	6.93	7.50
II	8.73	8.03	8.38	8.12	8.46
III	9.97	9.45	9.47	9.25	9.79
IV	10.34	9.90	10.00	9.77	10.08
V	10.90	10.72	10.73	10.62	10.83
Low Exp. Group	46.39	44.76	45.70	44.70	46.67
VI	11.32	11.06	11.12	11.13	11.39
VII	11.43	11.88	11.89	12.08	12.02
VIII	11.72	12.74	12.32	12.49	12.47
Medium Exp. Group	34.46	35.68	35.33	35.71	35.89
IX	11.27	11.63	11.38	11.67	10.84
X	7.89	7.81	7.33	7.75	6.84
High Exp. Group	19.16	19.44	18.71	19.42	17.68

Source: Calculated from Tables 1.B-1 & 1.B-2 in Annex 1.B, defining the low-, middle-, and high-income (expenditure) household groups as included in the text (Al-Araby, 2010).

Table (4)

**Decile Distribution of Households Expenditures on the Subsidized Commodities
 In the Rural Sector in Egypt, 2004-2005**

Household Distribution Deciles	Bread	Edible oil	Sugar	Rice	Tea
I	6.12	4.91	5.50	5.34	5.65
II	8.22	6.08	6.61	6.34	6.65
III	9.17	7.07	7.44	7.24	7.50
IV	9.65	8.21	8.40	8.13	8.42
Low Exp. Group	33.16	26.27	27.97	27.04	28.22
V	9.93	9.21	9.29	9.08	9.33
VI	10.17	10.26	10.20	10.17	10.29
VII	10.71	11.66	11.51	11.37	11.38
Medium Exp. Group	30.81	31.13	30.99	30.62	31.00
VIII	11.15	12.78	12.58	12.42	12.27
IX	11.55	14.25	13.58	14.19	13.56
X	13.32	15.71	14.95	15.82	14.85
High Exp. Group	36.01	42.74	41.10	42.44	40.67

Source: Calculated from Tables 1.B-1 & 1.B-2 in Annex 1.B, defining the low-, middle-, and high-income (expenditure) household groups as included in the text (Al- Araby, 2010).

Looking at the governorate and regional levels, the RCs, the RC beneficiaries, the wheat flour (82% extraction), and the BB bakeries are unequally distributed, given relative poverty in both levels. As shown in Table 5, Upper Egypt whose share of total poor is 61 percent has only 30 percent of total BB bakeries and receives 36 percent of total wheat flour (82 percent extraction) distributed across the country. Moreover, this region gets about 31 percent of total number of RC's and 34% of the RC beneficiaries. On the other side, urban governorates, whose poor residents represent only 5 percent of the total poor, have 16 percent of total RC's and 15 percent of RC beneficiaries, 21% share of wheat flour (82% extraction) and 22% of the BB bakeries. Nonetheless, Lower Egypt where almost one third of the total poor live, has 47 percent of the total RC holders, 44 percent of total beneficiaries, 40 percent of BB outlets, and 35% of wheat flour (82 percent-extraction)¹⁵.

To shed more light on the differences between the governorates, given their poverty ratios, the shares of the RC, the beneficiaries, the BB Bakeries, and the wheat flour (82% extraction) have been calculated per 1% of the poor in the Urban, Lower- and Upper-Egypt Governorates. As shown in Table (5), the allocation in 2008 per 1% of the poor is 3 RC in the Urban Governorates, as compared to 1.5 RC in Lower-Egypt and 0.5 RC in Upper-Egypt Governorates. The distribution of the number of Beneficiaries is 3, 1.4 and 0.6 in the three governorate groups respectively. For the number of the BB Bakeries, the distribution is 4, 1.3 and 0.5 to the three governorate groups respectively; and for the 82% extracted Wheat Flour, the distribution is 4 tons, 1.1 tons and 0.6 tons. This shows clearly that the Urban Governorates, with the lowest poverty ratio, get the largest share of the RC, Beneficiaries, BB Bakeries and Wheat Flour (82% extraction) and the Upper-Egypt Governorates, with the highest poverty ratio, get the smallest share of them.

¹⁵ Urban governorates include: Cairo, Alexandria, Port Said, and Sues. Lower Egypt includes: Kalyoubia, Ismailia, Beheira, Gharbia, Dakahlia, Sharkia, Kafr El-Sheikh, Damietta, and Menoufia. Upper Egypt includes: Giza, Beni Suef, Fayoum, Assiut, Suhag, Qena, Menia, Aswan, and Luxor.

Table (5)

Regional Distribution of Population, Poor, Ration Cards, Beneficiaries, BB Bakeries, and Wheat Flour (82 percent Extraction) in 2008 (%)

	<i>Urban Governorates</i>	<i>Lower Egypt Governorates</i>	<i>Upper Egypt Governorates</i>
I- Percentage on the regional level			
1-Population	16.44	42.99	32.90
2- Poverty Ratio (2004/05)	5.12	31.57	61.21
3- Ration Cards	15.58	47.41	30.91
4- Beneficiaries	15.16	44.46	34.32
5- BB Bakeries	22.29	40.31	30.34
6- 82% Extracted Wheat Flour	20.75	35.14	35.99
II. Distribution per 1% of the poor (2008):			
7- Number of Ration Cards	3	1.5	0.5
8- Number of Beneficiaries	3	1.4	0.6
9- Number of BB Bakeries	4	1.3	0.5
10- 82% Extracted Wheat Flour (ton)	4	1.1	0.6

Source: Lines 1-5 are extracted from Table 1.B.8 in Appendix B; and lines 6-9 are estimated by dividing, the ration cards (line 2), beneficiaries (line 3), BB bakeries (line 4) and 82% extracted wheat flour (line 5) by the poverty ratio (line 1).

III- Social Assistance Program (SAP) in Egypt:

The SAP includes Monthly Assistance Plan, and One-Time Assistance Plan. Each of the two Assistance Plans includes different types of SA. The objective of all these programs is to provide financial assistance to needy households who are not covered by other insurance plans.

1- Overview of the Social Assistance Program:

The Government of Egypt (GoE) has broadened the scope of the Social Assistance Program (SAP) over the last ten years with respect to the number of recipients, the amount of Social Assistance (SA) and the components of the Program. The first law on Social Assistance Programs issued in Egypt was Law 116 in 1950 (MISA, 1997). Over the last 10 years, the number of SA beneficiaries increased from almost 74 thousand in 1998/99 to 1.2 million in 2008/09 (see Table 6), and has been

Table 6

Monthly Social Assistance Programs 1999, 2008, 2009

Types of Social Assistance	1998/99			2007/08			2008/09		
	No. of Recipients (1)	Ave. Month. Assist. (LE) (2)	Total Annual Assist. (LE Thous.) (3)	No. of Recipients (4)	Ave. Month. Assist. (LE) (6/4)/12 (5)	Total Annual Assist. (LE Thous.) (6)	No. of Recipients (7)	Ave. Month. Assist. (LE) (9/7)/12 (8)	Total Annual Assist. (LE Thous.) (9)
I. Monthly Social Assistance:									
1. Pension Plan	--	30	--	915285	76.1	835370.7	1038364	86.2	1073525.9
2. Monthly Assist. Plan	--	14	--	101947	39.0	47746.4	98164	69.3	81598.0
3. Child Pens. Plan	--	--	--	49807	38.8	23162.2	49918	52.0	31174.8
Total	73995	22.0		1067039	70.8	906279.3	1186446	83.3	1186298.7
II-Scholarships to Students of:									
4. Pension Plan	--	--	--	5059852	22.9	139117.3	532410	25.4	162020.0
5. Monthly Assist. Plan	--	--	--	44765	19.9	10671.1	54773	25.0	16435.2
6. Child Pens. Plan	--	--	--	35062	22.4	9410.5	37713	24.8	11199.3
Total				5858122	22.7	159198.9	624896	25.3	189655.0

Source: Columns 1 & 2 are taken from Korayem (2002); and columns 4, 6, 7, 9 are taken from Ministry of Social Solidarity, unpublished data; Columns 5 & 8 are calculated from the Table data.

increased to 2 million in the new Social Assistance Law which has been approved by the Parliament in 2010. The average monthly amount of SA increased from LE 22 in 1998/99¹⁶ to LE 83.3 in 2008/09¹⁷ (Table 6); i.e., it increased to about four times over the last 10-year period.

Regarding the types of Social Assistance, additional programs have been added to the Monthly-Assistance and the One-Time Assistance Plans. The Monthly-Assistance in 1998/99 covered the Pension Plan (MAASH-EL-DAMAN)¹⁸ and the

¹⁶ In 1998-99, the average amount of the Pension Plan was LE 30, and the average amount of the Monthly Assistance Plan was LE 14 (see Table 6).

¹⁷ This includes a new Pension Plan, the Child Pension Plan, which was not existent in 1998/99 (see Table 6).

¹⁸ The Pension Plan provided monthly payments to orphans, widows, elderly people, divorced women, the handicapped (totally disabled), prisoners' families (where the sentence is three years and more in prison) and unmarried women aged fifty and older.

Monthly-Assistance Plan¹⁹. The One-Time Assistance includes several types; some of them were existent in 1998/99, and still exist until today, and others have been added in the years 2000's²⁰.

2-Assessment of the Social Assistance Program (SAP):

The SAP targets the poor in Egypt. SA will be assessed via three aspects using two sources of data: published figures and field work data. These three aspects are: sufficiency, coverage, and targeting.

A- SA Sufficiency Assessment: In assessing the sufficiency of the SAP in meeting the cost of living of the recipients, our indicator here is the annual per capita extreme poverty line and the annual per capita total poverty line for Egypt, estimated by the World Bank in 2008, which are LE 1462 and LE 1968 respectively (Government of Egypt, FAO & others, 2009a; 22). Comparing the average annual Social Assistance per recipient in 2008/2009, which is LE 999.6²¹, with the two per capita poverty lines; one finds that it represents 68.4% of the extreme poverty line and 50.8% of the total poverty line, respectively. However, the SA recipient is supporting a household in most of the cases. Assuming an average household's size of five²², the annual SA per capita will be LE 200²³. Comparing this annual SA per capita with the two estimated poverty lines, one finds that it reaches only 13.7% of the extreme poverty line, and 10.2% of the total poverty line.

This non-sufficiency of the SA to satisfy the minimum cost of living of the poor can be also shown by comparing the average annual SA in 2008/9, which is equal to LE 999.6, with the average expenditure on food and beverages, and on total consumption of the lowest household's expenditure bracket (less than LE 2000 a year) in the Households Income and Expenditure Consumer Survey (HIECS) 2008/09, which are LE 1065.8 and LE 1549.0 respectively (CAPMAS, HIECS 2008/09).

¹⁹ The Monthly-Assistance Plan provides monthly payments to needy individuals and households who are not covered by the Pension Plan. Those eligible include pregnant women (until delivery), infant (up to two years of age), the partially disabled, the sick, prisoners families (the sentence should not be less than 2 months and below three years in prison) and women deserted by their husbands.

²⁰ The first group of one-time assistance payments includes the One-Time Assistance Plan, the Disaster Relief Assistance Plan and the Assistance Plan for former Government and Public Sector Employees (Korayem, 2002).

²¹ Estimated as average monthly assistance (= LE 83.3 (Table 6)) x 12 months= LE 999.6

²² The average household's size of the SA recipients in the sample of the field work conducted for the study is 5.1.

²³ The average annual household's SA (LE 999.9) / average household's size (5) = LE 199.9

According to these figures, the SA coverage will be 93.8% of the food expenditure and 64.6% of total expenditure of the lowest expenditure bracket.

B- SA Coverage Assessment: To assess the extent of the coverage of the SA to the poor on the country level, the ratio of the number of the SA recipients to the number of the extreme poor (who are living at the extreme poverty line or below) and to the number of the poor (those living at the total poverty line and below) will be estimated. Having total population equal to 75.4 million in 2008 (WFP, 2008; Table 2; 10), and having the percentage of the extreme poor and the poor in Egypt estimated as 9.1% and 35.7%, respectively, in 2008 (GoE, FAO and others, 2009a; 23), the number of the extreme poor and poor individuals in Egypt will be 6.9 million and 26.9 million individuals respectively, which means 1.4 million extreme poor households and 5.4 million poor households, according to the average household size of 5 members. Having the number of the monthly SA recipients in 2008/09 equal to 1.2 million (Table 6), the relative coverage of the SA to the poor households and individuals on the country level will be 85.7% of the extreme poor households and 22.2% of all poor households²⁴.

C- SA Targeting Assessment: Targeting assessment does not intend to determine whether or not all the eligible individuals in Egypt get SA. This cannot be done, given the current available data in Egypt. In our assessment, successful targeting means consistency between SA distribution and poverty. This will be examined on the governorate level with respect to the seven governorates covered by the field work study. Published data will be used to compare the distribution of the SA recipients in these seven governorates with the poverty rate in those governorates. Table 1.C-1 in Annex 1.C shows the percentage of the poor in the total population in each of the seven governorates, and the ratio of the SA recipients to the poor at the governorate level. Ranking those governorates according to the poverty ratio, Assiut comes first, with 60.2 % of the population being poor, then comes Sohag with 41.4% poverty ratio, Minya (38.3%), Sharkia (26.9%), Kafr-El-Sheikh (13.0) and lastly comes Cairo (5.3%). No data are available on the poverty ratio in Mersa-Matrouh.

²⁴ SA recipients (1.2 million) / extreme poor households (1.4 million) = 85.7%; and SA recipients (1.2 million) / poor households (5.4 million) = 22.2%.

Comparing the percentage of the SA recipients to the poor in the seven Governorates in 2008/09 as shown in Table 1.C-1, Annex 1.C, one finds that the highest SA coverage, as indicated by this ratio, is in Cairo which has the lowest poverty ratio (5.3%). The coverage ratios of the poor by types of SA in Cairo in 2008/09 are: 21.2% for the Pension Plan, 1.4% for the Monthly-Assistance and 1.7% for the Child Pension. The least coverage of SA is in Assiut with the highest poverty ratio (60.2 %); next comes Sohag with the second highest poverty ratio among the seven Governorates (41.4%). The coverage ratio of the poor by different types of SA in Assiut and Sohag in 2008/09 are respectively, 2.9% and 3.3% for the Pension Plan, 0.2% and 0.4% for the Monthly-Assistance, and 0.1% and 0.05% for the Child Pension (Table 1.C-1, Annex 1.C).

Thus, the **SA coverage** of the poor in the seven governorates are not well targeted since, generally speaking, the SA coverage is greater in the governorates with lower poverty ratio (like Cairo) and smaller in the governorates with higher poverty ratio (like Assiut). However, one may say that the **average amount** of the SA are fairly targeted, since relatively higher amount of SA are allocated to the poorer Governorates, and relatively lower amount to the less poor ones.

IV- Cash Subsidy and In-Kind Subsidy; Pros and Cons:

The subsidy system in Egypt includes the two types: in-kind system and the cash system. The in-kind system is represented by the BB subsidy, in which the subsidized bread is available to everyone, and the subsidized food commodities which are provided by a certain quota to the RC holders. The cash system is represented by the SA and scholarships provided to the target group which includes those households (individuals) who have no sources of income. Each of the two systems has its pros and cons to the recipients, who are supposedly the poor and the low-income Egyptians, and to the providers which in our case is the Government represented by the Ministry of Social Solidarity (MOSS), and the Non-Governmental Organizations (NGO's).

For the subsidy recipients, the cash system gives them the freedom to buy whatever they want of goods and services, with the quantity they want of each, given the price(s) of these commodities and services and the subsidy amount. Thus, given a set amount of cash subsidy, the higher are the prices, the smaller will be the amount bought of the commodities (and services), no matter how basic are some of those commodities to the individuals' life. On the other hand, the in-kind subsidy does not

give the beneficiaries any freedom of choice. They have to buy the subsidized commodities with the assigned amounts at the assigned prices. In other words, the in-kind subsidy guarantees the necessary commodities amount at low subsidized prices, but, it does not give any freedom of choice to the beneficiaries to choose among the available commodities in the market. As a subsidy beneficiary, choosing between the two kinds of subsidy systems with respect to basic commodities is equivalent to choosing between having freedom of choice of what to buy, but always being insecure regarding the quantity he/she can buy given price changes, or choosing to guarantee a certain amount of basic commodities at affordable controlled prices, but while being deprived of the freedom of choice for what to buy.

For the subsidy providers (governments and NGOs), the important question they face when applying any of the two types of subsidy systems is how to target those eligible to the subsidy. The waste in the subsidy that may exist, and the amount of the inclusion error involved, does not depend on whether the subsidy type chosen is cash or in-kind, but it depends mainly on the targeting mechanism applied. The choice of the appropriate system among the two subsidy types depends on four factors: the characteristics of the target group, the objective of the subsidy system, the economic status of the subsidy provider (which can be the government or the NGO), and the functioning of the market economy.

(1) The Characteristics of the Target Group: The economic and social characteristics of the target group are important factors in the choice between an in-kind and cash subsidy. What should be considered is whether the target group members are living in **absolute or relative poverty**. Living in absolute poverty, i.e. living at, or below, the absolute poverty line, means that they cannot afford to buy the necessary food commodities. On the other hand, living in relative poverty means that they are living at a relatively low income as compared to the average per capita income in the country, but that their income is sufficient to meet their basic needs (i.e., living above the absolute poverty line). A good example of that is the case of Bahrain and the other Gulf countries²⁵. For those living in relative poverty, cash subsidy would be a good choice. But for those living in absolute poverty, in-kind subsidy provides a more appropriate safety net for them.

²⁵ For example, poor Bahraini women are defined as those living at relative poverty line. Many of poor Bahrainis have cars and their homes are equipped with fridges, stoves, etc. of modern electrical appliances (Korayem, 2007).

(2) The Objective of the Subsidy System: This objective can be a specific target, like providing necessary food commodities to the target group to protect them from hunger and malnutrition. In this case, the in-kind subsidy will be the best choice, since giving them a cash subsidy does not guarantee the realization of the specific objective aimed at by the subsidy²⁶. But, if the objective is to raise the relative standard of living of the target group that lives in relative, and not absolute, poverty and, hence, their incomes satisfy already their basic needs, cash subsidy will be the best choice.

(3) The Economic Status of the Government as a Subsidy Provider: The purchasing power of the cash subsidy depends on the amount of subsidy and the price level. To keep a constant level of purchasing power to the recipients, cash subsidy has to be increased at the same pace as the rise in market prices. Since prices are usually increasing with time, especially if the market is malfunctioning, cash subsidy has to be increased annually with at the same percentage of the inflation rate. This can be achieved only in the economically advanced countries (like the developed countries) and rich economies, (like the Gulf countries) because of the availability of resources which they can depend on. In countries with poor or average economic resources, this cannot be realized; the increase in cash subsidy will always lag behind the inflation rate, making subsidy beneficiaries suffer from the increasing cost of living and the non-satisfaction of basic needs. In this case, it is for the benefit of the subsidy recipients to get subsidy in-kind and be deprived from having freedom of choice in the market, than having cash subsidy with freedom of choice regarding commodities, but with deteriorating standard of living and deprivation from satisfying their basic needs.

(4) The Functioning Pattern of the Market Economy: The market economy consists of three players, and to run efficiently the power of these players should be kept in balance. The first player is the producers and traders who own the capital and the power of hiring and firing and, hence, this player is the strongest one in the market. The second player consists of the workers who have their labor to offer. This player could be strong, if the supply of labor is organized under one entity, like labor unions, which coordinate their labor supply vis-à-vis the producers. On the other hand, labor can be weak and fragile, if each worker supplies his labor on his own, which is the case when labor unions or similar organizations are missing. The third player in the market is the consumers, who can be strong with their purchasing power, if they find

²⁶ “Virtually every study” on food stamps in the USA finds that “stamps increase household nutrition availability at “2 to 10 times the rate of a like value of cash income” (Barrett, 2002, as quoted in Gentilini, 2007; 7).

the organization(s), like consumer protection organizations, that protect their rights to get their money's worth and support them against market cheating and exploitation. On the other hand they can be weak and exploited if they do not find this umbrella protection, and must accept to buy whatever is available in the market to meet their needs, no matter how bad are the quality of the supplied commodities and how unreasonably high the prices are. Thus, in normal economic conditions, the functioning of the market economy will be successful and efficient only if there is a balance of power between the three players. This can be achieved by issuing laws and regulations that reduce the power of the first player (capital owners), like issuing strict monopoly laws that punish heavily non-competitive behavior in the market, and laws that increase the power of the two other players (labor and consumers), by allowing and encouraging the establishment of strong labor unions and consumer agencies. In this way, prices will be kept under control, the welfare of the three groups - producers, workers and consumers - can be maximized together, the economy will grow, and economic and social discrepancy between the populations will be kept within an acceptable level.

According to the factors above, which are supposed to guide the choice between subsidies in cash or in-kind, what is the appropriate type of food subsidy for Egypt? For the **first factor**, the characteristics of the target group, the members of this group in Egypt are the poor who are living at the absolute poverty line or below, and the low-income people who are just living above the poverty line. Regarding **the second factor**, the objective of the food subsidy system (BB and RC) is to guarantee a minimum standard of living for the poor and the low-income people, by providing them with the necessary food commodities at affordable prices to their low income level. Those who do not have a source of income, cash subsidy in the form of SA are provided to them by MOSS, together with the in-kind food subsidy (BB and RC commodities). Considering **the third factor**, Egypt is not a rich country in terms of resource endowments; however, it cannot be seen as a poor country either. But with the present status of the resources that the country has and the mismanagement of those resources, the GoE is suffering from a budget deficit which has been increasing over time. This means that, given the available resources and the prevailing budget deficit, the GoE is not capable of increasing cash subsidy, if applied, at the same pace as the increase in prices. For **the fourth factor**, the functioning of the market economy in Egypt is not as efficient as it should be. This is because the laws and regulations that

balance the power between the three players in the market are either missing or weak. The current monopoly law is weak and defective, leaving the market economic power mainly with the producers vis-à-vis the workers and consumers. Labor unions are limited to public enterprises' workers, who are supposedly much less exposed to exploitation as compared to the workers in the private sector. Also, the existing consumer protection agencies are not effective enough to enhance the power of the consumers vis-à-vis the producers and the traders.

One outcome of this unbalanced power between the three market players is the rise in prices over time, especially the prices of food, which most of the budget of the poor and the low-income people is spent on. Even with the low yearly inflation rate estimated and published by the government in the period before the financial crisis, **the average annual** consumer price index of food, beverages and tobacco (CPI, food) increased by 9.1% from year 2000 to 2005 at 1999/2000 prices²⁷ (Ministry of Planning and CAPMAS, 2005), and by 19.5% over the two years 2006/07-2008/09 at 2007 prices²⁸. Given that the budget deficit in Egypt has been considerably increased after the international food crisis in 2007 and the international financial crisis in 2008, one could not expect that the BB and RC subsidies, if they were in cash, would have increased by the same percentage as the increase in food prices during 1999/2000 – 2008/09. The lag of cash subsidy behind the food price increase would have meant the increase in poverty and the deterioration of the standard of living of the poor and low-income people in Egypt, with all what this might entail of negative political and economic consequences in society.

The assumption of the expected lag between cash subsidy and prices in Egypt can be substantiated by comparing the increase in the cash SA and the increase in prices over the mentioned period. The average monthly SA increased from LE 36 in 1999/2000 (Korayem, 2002) to LE 83.3 in 2008/09 (Table 6), which means an average annual increase of 5.3% over nine years period. This is much less than the average annual increase of food prices over the period (9.1% for the period 2000-2005 and 19.5% for 2006/07-2008/09), which means a fall in the real value of the SA and, hence, its purchasing power, despite having increased by 231.4% over the period 1999/2000 – 2008/09.

²⁷ ((CPI, food) in 2005 (146.8) - (CPI, food) in 2000 (101.5)) / 5 = 9.1; 1999/2000 = 100 (data are taken from: www.msrintranet.capmas.gov.eg/pls/social/pric_all)

²⁸ ((CPI, food) in 2008/09 (138.1) - (CPI, food) in 2006/07 (99.1)) / 2 = 19.5; 2007 = 100 (the same data source as the previous footnote).

One may conclude that the change of the in-kind subsidy of BB and RC commodities to cash subsidy **is not** an appropriate choice if the objective of the GoE is to guarantee the basic needs for the poor and the low-income people in Egypt, as long as the market is malfunctioning and the cash subsidy cannot be adjusted annually by the government according to price increases coming from the increasing budget deficit over time.

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Annex I

Annex (I.A) Elasticity of the Demand Function for Baladi Bread, Edible Oil, Sugar, Rice, and Tea

The demand functions of the above-mentioned commodities have been estimated using cross-section expenditure data in the Household Income, Expenditure, and Consumption Survey (HIECS) 2004/05. We applied the weighted least square (WLS) technique to take into consideration the relative share of the sample households in the different expenditure intervals. Five typical specifications have been tried in this regard; all of them are based on the Keynesian approach that views current consumption as a function of current income rather than permanent income as stated by Milton Friedman. The five forms of the demand function are the linear form, the semi-log and log-log forms, the log reciprocal form, and the double-log reciprocal form. The five forms are:

$$X_{ij} = a + bY_j \quad (1)$$

$$\log X_{ij} = a + b \log Y_j \quad (2)$$

$$X_{ij} = a + b \log Y_j \quad (3)$$

$$\log X_{ij} = a + b/Y_j \quad (4)$$

$$\log X_{ij} = a + b/Y_j + c \log Y_j \quad (5)$$

Where X_{ij} refers to the average expenditure of the household in the j^{th} expenditure interval on the i^{th} commodity, and Y_j refers to total expenditure per typical household in the j^{th} expenditure interval. Having tried the 5 specifications, the Log-Log form (equation 2) gave the best fit of the demand functions for the five items. The estimated demand functions are²⁹:

- Urban

$$\log bread = -3.715 + 0.852 \log TCE \quad (2-1U)$$

$$(1.230) \quad (0.202) \quad \bar{R}^2 = 0.470$$

²⁹ The numbers in parentheses are the standard errors of the estimated coefficients.

$$\log Oil = -4.993 + 0.795 \log TCE \quad (2-2U)$$

$$(1.242) \quad (0.204) \quad \bar{R}^2 = 0.428$$

$$\log Rice = -5.540 + 0.783 \log TCE \quad (2-3U)$$

$$(1.311) \quad (0.215) \quad \bar{R}^2 = 0.392$$

$$\log Sugar = -5.904 + 0.793 \log TCE \quad (2-4U)$$

$$(1.222) \quad (0.200) \quad \bar{R}^2 = 0.436$$

$$\log Tea = -5.901 + 0.773 \log TCE \quad (2-5U)$$

$$(1.341) \quad (0.220) \quad \bar{R}^2 = 0.375$$

- Rural

$$\log bread = 1.702 + 0.443 \log TCE \quad (2-1R)$$

$$(0.564) \quad (0.080) \quad \bar{R}^2 = 0.619$$

$$\log Oil = -0.866^* + 0.663 \log TCE \quad (2-2R)$$

$$(0.561) \quad (0.081) \quad \bar{R}^2 = 0.794$$

$$\log Rice = -2.274 + 0.801 \log TCE \quad (2-3R)$$

$$(0.364) \quad (0.053) \quad \bar{R}^2 = 0.931$$

$$\log Sugar = -1.624 + 0.649 \log TCE \quad (2-4R)$$

$$(0.473) \quad (0.068) \quad \bar{R}^2 = 0.839$$

$$\log Tea = -0.90^* + 0.538 \log TCE \quad (2-5R)$$

$$(0.511) \quad (0.074) \quad \bar{R}^2 = 0.753$$

Note = * denotes insignificance at 5% error level.

Annex I.B

Table (1.B-1): Average Expenditure on the Subsidized Food Items Per Urban Household in 2004/05 (L.E.)

HE Interval	# of Households	Weights ³⁰	Baladi Bread	Edible Oil	Rice	Sugar	Tea	Food & Beverage Expenditure	Total Consumption Expenditure
Less than 2000	75	0.341	49.3	13.5	7.6	5.2	4.9	1082.4	1511.7
2000-	206	0.937	68.2	16.3	9.8	6.6	6.7	1457.9	2542.5
3000-	461	2.096	100.9	23.4	13.2	9	9.3	1935.7	3509.3
4000-	718	3.264	112.1	20.8	12.9	9.1	9.1	2362	4471.3
5000-	1156	5.256	134	25.1	14.5	10.2	10	2827.6	5460.8
6000-	1483	6.742	150.7	26.2	15.2	10.5	10	3209.6	6440.5
7000-	1695	7.706	168.4	31	17.1	11.9	11.7	3663.3	7412.6
8000-	1907	8.670	176.5	32	17.7	12.5	12.1	4122.3	8401.2
9000-	1822	8.284	178.8	33.7	18.9	13.1	12.3	4481.3	9362.9
10000	2437	11.080	191.6	36.5	20	14.3	13.5	4957.2	10583
11500-	1941	8.825	196.7	36.9	20.6	14.8	14	5522.5	12028
13000-	2045	9.298	196.4	40.6	22.3	16.3	14.8	6111.7	13694
15000-	1442	6.556	203.8	43.4	22.8	16.5	15.4	6800.2	15654
17000-	1428	6.492	197.4	39.1	21.4	15.6	13.7	7424.1	17969
20000-	1261	5.733	189	38	20.1	14.9	12.4	8359.3	21575
25000-	670	3.046	176	33.2	17.5	12.7	10.9	9582.1	26541
30000-	942	4.283	116.2	22.5	11.5	8.9	7	11017.3	36236
50000-	220	1.000	60.5	9.2	4.2	4.1	2.5	13763	57648
75000-	48	0.218	84.2	15.3	5.3	5.5	4.4	17010.7	80674
100000+	37	0.168	36.8	8.7	5.2	4	2.7	21765.4	114366
Total	21995	100	171.9	33.2	18.3	13.1	12.1	5498.3	13289

³⁰ Calculated as the number of households in each expenditure bracket to total number of households.

Source: The first two columns and the last two ones are taken from CAPMAS, HIECS 2004/05, Vol.4, table 11-1, p. 40, while the middle 5 columns (expenditure on the 5 subsidized commodities) are taken from CAPMAS, unpublished data.

Table (1.B-2): Average Expenditure on the Subsidized Food Items Per Rural Household in 2004/05 (L.E.)

HE Interval	# of Households	Weights ³¹	Baladi Bread	Edible Oil	Rice	Sugar	Tea	Food & Beverage Expenditure	Total Consumption Expenditure
Less than 2000	207	0.825	46.4	15.7	10.3	6.9	7.4	1059.8	1562.5
2000-	494	1.968	62.8	19	12.4	8.5	9.1	1451.9	2530.5
3000-	980	3.904	72.7	19.7	12.3	8.9	9.1	1998.7	3504.8
4000-	1644	6.550	88.6	23	15	10.5	10.7	2457.4	4478.5
5000-	2330	9.283	104.3	26.2	16	11.1	11.4	2937.1	5449.5
6000-	2787	11.104	112.9	30.3	18.2	12.9	13	3411.8	6414.8
7000-	2949	11.749	118.6	36.1	20.9	14.6	14.8	3907.9	7391.3
8000-	2792	11.124	121.3	40.5	23.3	16.8	16.7	4396.3	8356.9
9000-	2390	9.522	125.6	46.1	25.8	18.8	18.4	4816.3	9333.9
10000	2869	11.430	134.8	51.6	29.5	20.7	20.2	5397.6	10519
11500-	1982	7.896	133.7	56.8	30.7	23.3	21.8	6086.3	11964
13000-	1600	6.375	145.9	61.5	33.9	25.7	23.9	6778	13597
15000-	825	3.287	151.4	65.4	34.5	26.8	24.7	7508.2	15498
17000-	643	2.562	169.6	67.9	35.3	28.3	25.6	8180.1	17622
20000-	379	1.510	178.2	67.8	34.2	29.4	26.8	9102.4	20995
25000-	129	0.514	170.6	66.7	32.4	26.9	25.1	10339.6	24865
30000-	82	0.327	183.9	46.6	55.8	22.8	21	10324.4	29863
50000-	15	0.060	77.4	58	88.8	24.8	18.6	16079.5	48270
75000-	0	0	0	0	0	0	0	0	0
100000+	2	0.008	284.6	0	0	0	0	35984.7	115632
Total	25100	100	120.7	41.4	23.7	17.2	16.8	4557.5	8953.3

³¹ Calculated as the number of households in each expenditure bracket to total number of households.

Source: The first two columns and the last two ones are taken from CAPMAS, HIECS 2004/05, Vol.4, table 11-2, p. 44, while the middle 5 columns (expenditure on the 5 subsidized commodities) are taken from CAPMAS, unpublished data.

(1.B-3)

Price Elasticity in Urban Areas, 2004-05

H.E. Interval	Bread	Edible oil	Sugar	Rice	Tea
Less than 2000	-0.0388	-0.0099	-0.0056	-0.0038	-0.0035
2000-	-0.0399	-0.0089	-0.0053	-0.0035	-0.0036
3000-	-0.0444	-0.0096	-0.0054	-0.0036	-0.0037
4000-	-0.0405	-0.0070	-0.0044	-0.0031	-0.0030
5000-	-0.0404	-0.0071	-0.0040	-0.0028	-0.0027
6000-	-0.0400	-0.0065	-0.0037	-0.0026	-0.0024
7000-	-0.0392	-0.0068	-0.0037	-0.0025	-0.0025
8000-	-0.0365	-0.0062	-0.0034	-0.0023	-0.0022
9000-	-0.0340	-0.0060	-0.0033	-0.0023	-0.0021
10000	-0.0330	-0.0059	-0.0032	-0.0023	-0.0021
11500-	-0.0303	-0.0053	-0.0029	-0.0021	-0.0019
13000-	-0.0273	-0.0052	-0.0029	-0.0021	-0.0019
15000-	-0.0256	-0.0051	-0.0027	-0.0019	-0.0018
17000-	-0.0227	-0.0042	-0.0023	-0.0016	-0.0014
20000-	-0.0193	-0.0036	-0.0019	-0.0014	-0.0012
25000-	-0.0157	-0.0028	-0.0014	-0.0010	-0.0009
30000-	-0.0089	-0.0016	-0.0008	-0.0006	-0.0005
50000-	-0.0037	-0.0006	-0.0002	-0.0002	-0.0002
75000-	-0.0042	-0.0007	-0.0002	-0.0002	-0.0002
100000+	-0.0014	-0.0003	-0.0002	-0.0002	-0.0001

Source: Calculated using equation 2 in the text and data from tables (1.B-1) and (1.B-5) in Annex 1.B.

Table (1.B-4)

Price Elasticity in Rural Areas, 2004-05

H.E. Interval	Bread	Edible oil	Sugar	Rice	Tea
Less than 2000	-0.0194	-0.0098	-0.0063	-0.0052	-0.0038
2000-	-0.0192	-0.0087	-0.0055	-0.0047	-0.0034
3000-	-0.0161	-0.0066	-0.0040	-0.0036	-0.0025
4000-	-0.0160	-0.0062	-0.0040	-0.0034	-0.0024
5000-	-0.0157	-0.0059	-0.0035	-0.0030	-0.0021
6000-	-0.0147	-0.0059	-0.0034	-0.0030	-0.0020
7000-	-0.0134	-0.0061	-0.0034	-0.0030	-0.0020
8000-	-0.0122	-0.0061	-0.0034	-0.0030	-0.0020
9000-	-0.0116	-0.0064	-0.0035	-0.0031	-0.0020
10000	-0.0111	-0.0064	-0.0036	-0.0030	-0.0020
11500-	-0.0097	-0.0062	-0.0032	-0.0030	-0.0019
13000-	-0.0095	-0.0060	-0.0032	-0.0030	-0.0019
15000-	-0.0089	-0.0058	-0.0030	-0.0029	-0.0018
17000-	-0.0092	-0.0055	-0.0028	-0.0028	-0.0017
20000-	-0.0087	-0.0049	-0.0025	-0.0026	-0.0016
25000-	-0.0073	-0.0043	-0.0020	-0.0021	-0.0013
30000-	-0.0079	-0.0030	-0.0035	-0.0018	-0.0011
50000-	-0.0021	-0.0024	-0.0036	-0.0012	-0.0006
100000+	-0.0035	0.0000	0.0000	0.0000	0.0000

Source: Calculated using equation 2 in the text and data from tables (1.B-2) and (1.B-6) in Annex 1.B.

Table (1.B-5)

Ratio of Expenditure on Subsidized Items to Food Expenditure per Urban Household 2004-5 (%)

H.E. Interval	# of Households	Bread	Edible oil	Rice	Sugar	Tea
Less than 2000	75	4.55	1.25	0.70	0.48	0.45
2000-	206	4.68	1.12	0.67	0.45	0.46
3000-	461	5.21	1.21	0.68	0.46	0.48
4000-	718	4.75	0.88	0.55	0.39	0.39
5000-	1156	4.74	0.89	0.51	0.36	0.35
6000-	1483	4.70	0.82	0.47	0.33	0.31
7000-	1695	4.60	0.85	0.47	0.32	0.32
8000-	1907	4.28	0.78	0.43	0.30	0.29
9000-	1822	3.99	0.75	0.42	0.29	0.27
10000	2437	3.87	0.74	0.40	0.29	0.27
11500-	1941	3.56	0.67	0.37	0.27	0.25
13000-	2045	3.21	0.66	0.36	0.27	0.24
15000-	1442	3.00	0.64	0.34	0.24	0.23
17000-	1428	2.66	0.53	0.29	0.21	0.18
20000-	1261	2.26	0.45	0.24	0.18	0.15
25000-	670	1.84	0.35	0.18	0.13	0.11
30000-	942	1.05	0.20	0.10	0.08	0.06
50000-	220	0.44	0.07	0.03	0.03	0.02
75000-	48	0.49	0.09	0.03	0.03	0.03
100000+	37	0.17	0.04	0.02	0.02	0.01

Source: Calculated from Table 1.B-1 in Annex 1.B.

Table (1.B-6)
Ratio of Expenditure on Subsidized Items to Food Expenditure
Per Rural Household 2004-05 (%)

HE Interval	Relative Share of Households	Bread	Edible oil	Rice	Sugar	Tea
Less than 2000	207	4.38	1.48	0.97	0.65	0.70
2000-	494	4.33	1.31	0.85	0.59	0.63
3000-	980	3.64	0.99	0.62	0.45	0.46
4000-	1644	3.61	0.94	0.61	0.43	0.44
5000-	2330	3.55	0.89	0.54	0.38	0.39
6000-	2787	3.31	0.89	0.53	0.38	0.38
7000-	2949	3.03	0.92	0.53	0.37	0.38
8000-	2792	2.76	0.92	0.53	0.38	0.38
9000-	2390	2.61	0.96	0.54	0.39	0.38
10000	2869	2.50	0.96	0.55	0.38	0.37
11500-	1982	2.20	0.93	0.50	0.38	0.36
13000-	1600	2.15	0.91	0.50	0.38	0.35
15000-	825	2.02	0.87	0.46	0.36	0.33
17000-	643	2.07	0.83	0.43	0.35	0.31
20000-	379	1.96	0.74	0.38	0.32	0.29
25000-	129	1.65	0.65	0.31	0.26	0.24
30000-	82	1.78	0.45	0.54	0.22	0.20
50000-	15	0.48	0.36	0.55	0.15	0.12
100000+	2	0.79	0.00	0.00	0.00	0.00

Source: Calculated from Table 1.B-2 in Annex 1.B.

Table (1.B-7)
Total Number of Population, Poor, Ration Cards, Beneficiaries, and Bakeries, by Region

Governorates	Population (thousands), 2006 (1)	Poor Persons (thousands), 2004/05 (2)	No. of Ration Cards, 2008 (3)	No. of Beneficiaries, 2008 (3)	# of Bakeries, 2008 (3)	Allocations of 82% Extracted Wheat Flour (ton)
Cairo	6759	356.4	1089788	5527200	66518.3	73087.98
Alexandria	4124	306.8	568478	3224033	36683	40868.64
Port Said	571	41	95791	414371	4459.35	5077.70
Suez	512	11.8	82521	399469	4831.47	5027.47
<i>Urban Govs</i>	<i>11966</i>	<i>716</i>	<i>1836578</i>	<i>9565073</i>	<i>112492</i>	<i>124061.79</i>
Damietta	1097	28.2	231289	1012398	8110.72	9196.89
Dakahlia	4990	346.7	995398	4675891	29870.2	30795.58
Sharkia	5354	1440	860572	4636302	34816.4	34913.99
Kalyoubia	4252	435.6	569254	3105460	31055	31528.29
kafr el- sheikh	2620	341.8	517032	2573630	15554.7	15832.61
Gharbia	4011	238.9	813887	3864412	25698.1	26382.49
Menoufia	3271	564.4	612914	2997634	22518	22889.69
Beheira	4747	960.7	852102	4421953	27874.3	30124.19
Ismailia	953	55.2	135303	770504	7921.55	8221.65
<i>Lower Egypt</i>	<i>31295</i>	<i>4411.5</i>	<i>5587751</i>	<i>28058184</i>	<i>203419</i>	<i>209885.38</i>
Giza	3143	737.7	376826	2083772	25816.9	26904.8
Beni suef	2292	1024.5	356881	2108134	18256.9	18402.57
Fayoum	2511	290.7	457564	2387513	15718.1	22813.13
Menia	4166	1595.2	631461	3971999	32884.8	33882.73
Assyout	3445	2072.5	484036	3190831	24360.1	29244.74
Sohag	3747	1551	546298	3501517	16838.8	33686.51
Qena	3002	988.6	487533	2850114	9195.63	26477.61
Luxor	457	25.5	79613	438052	2949.65	5815.68
Aswan	1187	268.2	222233	1125066	7118.43	14383.55
<i>Upper Egypt</i>	<i>23950</i>	<i>8553.9</i>	<i>3642445</i>	<i>21656998</i>	<i>153139</i>	<i>211611.32</i>
Red Sea	289	..	27597	133291	2050.65	2588.2
New valley	187	..	40176	166310	1483.39	1890.26
Matrouh	323	..	34338	252519	2253.7	4419.17
North Sinai	344	..	51708	288395	2159.15	4919.32
South Sinai	150	..	6891	39174	847.85	1382.7
<i>Frontier Govs</i>	<i>1293</i>	<i>-</i>	<i>160710</i>	<i>879689</i>	<i>8794.74</i>	<i>15199.65</i>
Helwan	1713	..	228804	1209152	13119.3	18202.67
6 of october	2581	..	329532	1741992	13729.9	18756.45
Total	72798	13974.1	11785820	63111088	504694	597717.26

Source: (1) CAPMAS, 2008, pp. 3- , (2) INP and UNDP 2008, p. 277, (3) MOSS, 2009, p.14

Table 1.B-8

Percentage Distribution of Population, Poor, Ration Cards, Beneficiaries, BB Bakeries, and Wheat Flour (82 percent Extraction), by Region (%)

<i>Governorates</i>	<i>Population 2006</i>	<i>Poor Persons 2004/05</i>	<i>Ration Cards 2008</i>	<i>Beneficiaries, 2008</i>	<i>BB Bakeries, 2008</i>	<i>82% Extracted Wheat Flour</i>
Cairo	9.28	2.55	9.25	8.76	13.18	12.23
Alexandria	5.66	2.20	4.82	5.11	7.27	6.83
Port Said	0.78	0.29	0.81	0.66	0.88	0.85
Suez	0.70	0.08	0.70	0.63	0.96	0.84
<i>Urban Govs</i>	<i>16.44</i>	<i>5.12</i>	<i>15.58</i>	<i>15.16</i>	<i>22.29</i>	<i>20.75</i>
Damietta	1.51	0.20	1.96	1.60	1.61	1.55
Dakahlia	6.85	2.48	8.45	7.41	5.92	5.17
Sharkia	7.35	10.30	7.30	7.35	6.90	5.85
Kalyoubia	5.84	3.12	4.83	4.92	6.15	5.27
Kafr el- sheikh	3.60	2.45	4.39	4.08	3.08	2.65
Gharbia	5.51	1.71	6.91	6.12	5.09	4.41
Menoufia	4.49	4.04	5.20	4.75	4.46	3.83
Beheira	6.52	6.87	7.23	7.01	5.52	5.04
Ismailia	1.31	0.40	1.15	1.22	1.57	1.37
<i>Lower Egypt</i>	<i>42.99</i>	<i>31.57</i>	<i>47.41</i>	<i>44.46</i>	<i>40.31</i>	<i>35.14</i>
Giza	4.32	5.28	3.20	3.30	5.12	4.5
Beni suef	3.15	7.33	3.03	3.34	3.62	3.08
Fayoum	3.45	2.08	3.88	3.78	3.11	3.81
Menia	5.72	11.42	5.36	6.29	6.52	5.67
Assyout	4.73	14.83	4.11	5.06	4.83	4.89
Sohag	5.15	11.10	4.64	5.55	3.34	5.63
Qena	4.12	7.07	4.14	4.52	1.82	4.43
Luxor	0.63	0.18	0.68	0.69	0.58	0.97
Aswan	1.63	1.92	1.89	1.78	1.41	2.41
<i>Upper Egypt</i>	<i>32.90</i>	<i>61.21</i>	<i>30.91</i>	<i>34.32</i>	<i>30.34</i>	<i>35.39</i>
Red Sea	0.40		0.23	0.21	0.41	0.43
New valley	0.26		0.34	0.26	0.29	0.32
Matrouh	0.44		0.29	0.40	0.45	0.74
North sinai	0.47		0.44	0.46	0.43	0.82
South sinai	0.21		0.06	0.06	0.17	0.23
<i>Frontier Govs</i>	<i>1.78</i>	<i>-</i>	<i>1.36</i>	<i>1.39</i>	<i>1.74</i>	<i>2.54</i>
Helwan	2.35		1.94	1.92	2.60	3.04
6 of october	3.55		2.80	2.76	2.72	3.14
Total	100	100	100	100	100	100

Source: Calculated from Table 1.B-7 in Annex 1.B

Annex I.C., Table (I.C-1), Monthly Social Assistance in 7 Governorates⁽¹⁾
(Ordered by Poverty Ratio), In 2007/2008 & 2008/2009

Social Assist Per Govern.	Population (2006) (Thous.) (1)	Number of Poor 2004/05 (Thous.) (2)	Poverty Ratio (%) (3) (2 / 1)	2007/08			2008/09			Ratio of Recipients to the Poor 2007/08 (%) (10) (4 / 2)	Ratio of Recipients to the Poor 2008/09 (%) (11) (7/2)
				No. of Recipients (4)	Aver. Month. Assist.(LE) (5) (6/4)/12	Total Annual Assist.(LE thous.) (6)	No. of Recipients (7)	Aver. Month. Assist. (LE) (8) (9/7)/12	Total Annual Assist.(LE thous.) (9)		
1.Assiut:	3445	2072.5	60.2								
A.Pension Plan				48673	77.7	45402.2	59504	83.7	59765.0	2.3	2.9
B.Monthly Assistance Plan				3508	67.1	2824.5	4811	86.8	5009.3	0.2	0.2
C.Child Pension				4200	13.2	667.0	2628	28.9	912.6	0.2	0.1
2.Sohag:	3747	1551	41.4								
A.Pension Plan				44487	82.7	44132.6	50592	86.3	52410.5	2.9	3.3
B.Monthly Assistance Plan				3918	71.1	3343.8	6241	78.7	5894.4	0.3	0.4
C.Child Pension				711	67.5	575.9	787	71.0	671.2	0.05	0.05
3.Minya:	4166	1595.2	38.3								
A.Pension Plan				58396	84.3	59075.4	82784	89.8	89298.5	3.7	5.2
B.Monthly Assistance Plan				10751	21.2	2731.4	5250	71.5	4503.5	0.7	0.3
C.Child Pension				5328	17.8	1140.5	2681	48.0	1544.5	0.3	0.2
4.Mersa- Matruh	323	--	--								
A.Pension Plan				8938	84.9	9106.9	9656	92.1	10675.3	--	--
B.Monthly Assistance Plan				796	71.4	681.6	34	10.1	4.1	--	--
C.Child Pension				248	64.3	191.3	269	69.1	223.0	--	--
5.Sharkia:	5354	1440	26.9								
A.Pension Plan				62917	79.5	59995.3	71774	85.6	73700.8	4.4	5.0
B.Monthly Assistance Plan				3277	61.8	2429.2	5715	76.3	5236.0	0.2	0.4
C.Child Pension				2561	58.0	1782.9	2993	65.4	2351.4	0.2	0.2
6.Kafr-El- Sheikh:	2620	341.8	13.0								
A.Pension Plan				33288	75.0	29957.0	38071	74.1	33831.0	9.7	11.1
B.Monthly Assistance Plan				1522	70.6	1290.3	2428	66.3	1933.0	0.4	0.7
C.Child Pension				2231	39.9	1069.3	2377	46.7	1330.8	0.7	0.7
7.Cairo:	6759	356.4	5.3								
A.Pension Plan				71343	84.7	72539.8	75552	92.6	83981.5	20.0	21.2
B.Monthly Assistance Plan				3500	82.1	3450.2	4925	83.8	4952.5	1.0	1.4
C.Child Pension				5572	40.9	2736.0	6143	45.2	3333.3	1.6	1.7

(1) Those are the seven Governorates where field work has been conducted for the purpose of this study.

Source: Columns 1 & 2 are taken from CAPMAS & Egypt, Human Development Report, 2008 as cited in: El-Araby, 2010; Appendix D, Table D1. Columns 4, 6, 7 & 9 are taken from the Ministry of Social Solidarity (MOSS), unpublished data. Columns 3, 5, 8, 10 & 11 are calculated from the Table data.

Acronyms

BB: Baladi Bread

CAPMAS: Central Agency for Public Mobilization and Statistics

CDC: Cairo Demographic Center

FGD: Focus Group Discussion

HIECS: Households Income, Expenditure, and Consumption Survey

GoE: Government of Egypt

MOF: Ministry of Finance

MOP: Ministry of Planning (Economic Development)

MOSS: Ministry of Social Solidarity

RC: Ration Card

SA: Social Assistance

SAP: Social Assistance Program

WB: World Bank

WFP: World Food Program