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POVERTY, GROWTH AND INCOME DISTRIBUTION IN LEBANON [*]

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ABSTRACT

This Country Study is based on a full national report that is the first to draw a profile of poverty in Lebanon based on money-metric poverty measurements of household expenditures. The report provides a comprehensive overview of the characteristics of the poor and estimates the extent of poverty and the degree of inequality in the country. It finds that nearly 28 per cent of the Lebanese population can be considered poor and eight per cent can be considered extremely poor. However, the most important finding of the report is that regional disparities are striking. For example, whereas poverty rates are insignificant in the capitol, Beirut, they are very high in the Northern city of Akkar. In general, the North governorate has been lagging behind the rest of the country and thus its poverty rate has become high. Levels of poverty are above-average in the South but are not as severe as expected. There are three other major results that have notable implications for a poverty-reduction programme in Lebanon. First, with few exceptions, measures of human deprivation, such as that provided by an Unsatisfied Basic Needs methodology, are generally commensurate with those for money-metric measures based on household expenditures. Second, the projected cost of halving extreme poverty is very modest, namely, a mere fraction of the cost of the country's large external debt obligations. However, such a cost would rise dramatically if inequality were to worsen (i.e., if future growth were anti-poor). Also, the cost of reducing overall poverty would be substantially higher. Third, the poor are heavily concentrated among the unemployed and among unskilled workers, with the latter concentrated in sectors such as agriculture and construction. This places a priority on a broad-based, inclusive pattern of economic growth that could stimulate employment in such sectors. Based on such findings, the report concentrates on providing general policy recommendations on issues of directing public expenditures to poor households. One of its major

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recommendations is to concentrate on channelling resources to poor regions below the governorate level, such as to four 'strata' where two-thirds of the poor in Lebanon are concentrated. However, the report notes that macroeconomic policies, particularly fiscal policies, will have to be redesigned to mobilize the reources necessary to finance the increases in public expenditures on the social safety nets and public investment in social services that should be part of a major poverty-reduction programme.

1 INTRODUCTION

This Country Study is a modified Executive Summary of a full 2007 national report on "Poverty, Growth and Income Distribution in Lebanon," supported by the Country Office of the United Nations Development Programme in partnership with the Ministry of Social Affairs and the Central Administration of Statistics of Lebanon.

The International Poverty Centre is publishing this Country Study in order to help disseminate up-to-date information on conditions of poverty and inequality in Lebanon. The full national report was able to draw on the results of several surveys and studies supported since the early 1990s by the Ministry of Social Affairs with support from UNDP and the Central Administration of Statistics.

The Ministry recognized that poverty reduction could not be accomplished without a strong statistical base, upon which a portrait of the living conditions of the population could be drawn and improvements in these conditions could be pursued and realized.

The first major survey, in this regard, was "The Mapping of Living Conditions", which produced data for 1997. It identified deprivation rates at the kada level, provided evidence of the geographic distribution of poverty and established that wide disparities existed between the peripheral and central regions of the country.

The 2006 study "Comparative Mapping of Living Conditions between 1995 and 2004" used 2004/05 data generated by the "National Survey of Living Conditions and Household Budget Survey". The study analyzed the changes in the deprivation levels in Lebanon ten years after the first mapping study.

The full 2007 national report, "Poverty, Growth and Income Distribution in Lebanon," is the first of its kind in Lebanon. It draws a profile of poverty based on money-metric poverty measures and calculates a national poverty line based on household expenditures. Relying on the expenditure data from the 2004-5 National Survey, the report provides a comprehensive overview of the characteristics of the poor and estimates poverty gaps and Gini Coefficients of inequality.

The report is expected to directly contribute to the reform processes launched by the Government of Lebanon at the Paris III donor conference in January 2007. The Government's medium-term reform programme includes, for the first time, a Social Action Plan that places the objective of poverty reduction, social justice and equity at the heart of the reform process. The Social Action Plan focuses on pursuing a coordinated inter-ministerial approach to improving efficiency, cost effectiveness and coverage in the delivery of social services, including better targeted safety nets for the most deprived and vulnerable population groups.

Just as importantly, the Plan calls for the elaboration of a comprehensive and longer-term Social Development Strategy that could consolidate the inter-ministerial and cross-sectoral coherence needed for a concerted effort to achieve the targets set for reducing poverty and regional disparities. This effort would be part of the broader strategy for attaining inclusive and sustained economic growth, social equity and social justice.

2 MAIN RESULTS AND FORECASTS

2.1 EXPENDITURE LEVELS AND INEQUALITY

The welfare measure used in this Country Study is household consumption.[1] In 2004-5, average per capita annual nominal consumption reached 3,975,000 LBP (approximately US$ 2,650). Taking regional price differentials into consideration, we find that annual per capita real consumption is one per cent lower, at 3,935,000 LBP (Table 1).

TABLE 1

Mean and Median Nominal and Real Per Capita Consumption by Governorate (2004-5) in Thousand LBP

Governorate	Nominal Per Capita Consumption		Consumption Adjusted for Regional Price Differences	
	Mean	Median	Mean	Median
Beirut	6514	5240	6141	4939
Mount Lebanon	4512	3661	4321	3506
Nabatieh	3924	3349	4075	3478
Bekaa	3385	2747	3558	2888
South	3007	2276	3151	2385
North	2532	1933	2671	2039
All Lebanon	3975	3101	3935	3073

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Mean per capita consumption is highest in Beirut (more than one and one-half times the national average) and lowest in the North (three-quarters of the national average). The North, South and Bekaa governorates have per capita real consumption below the national average. As Table 1 shows, the median per capita consumption is always lower than the mean because most Lebanese consume less than the average. For example, the consumption expenditure of half of the Lebanese population is approximately 20 per cent of the average consumption level.

The distribution of expenditure among the population is relatively unequal. The bottom 20 per cent of the population accounts for only seven per cent of all consumption in Lebanon while the richest 20 per cent accounts for 43 per cent (over six times higher). However, inequality is comparable to that in other middle-income countries. The Gini coefficient, a standard measure of inequality, is estimated to be 0.37 for nominal consumption and 0.36 for real consumption.

These levels of inequality are comparable to the average of MENA countries (for which the Gini is 0.37) and much lower than that of Latin American countries (where the average Gini is 0.55). Relatively equitable distribution up to the 5th decile (Figure 1) also implies that there is a high concentration of the population *around* any consumption threshold for poverty drawn below this level. This explains why in Lebanon 20 per cent of the population is bunched between the lower (extreme) poverty line and the upper (overall) poverty line.

FIGURE 1

Consumption Shares, by Deciles
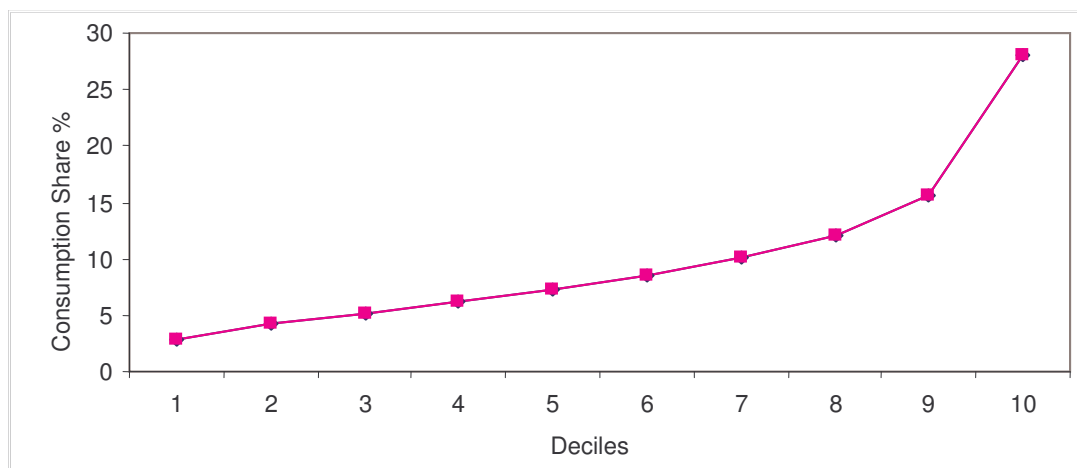
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Within-governorate inequality accounts for most of the inequality in Lebanon. About 92 per cent of aggregate inequality in consumption can be attributed to within-governorate inequality, while the reminder, only eight percent, is due to inter-governorate inequality.

Although the ***North has the lowest per capita expenditure, it exhibits the highest inequality compared to that in other governorates*** (its Gini coefficient is 0.37). By comparison, Nabatiyeh's per capita consumption is ranked third in descending order, yet it has the lowest inequality (with a Gini of 0.29).

2.2 POVERTY AND GROWTH: 1997-2007

Nearly eight per cent of the Lebanese population live under conditions of extreme poverty (i.e., below the 'lower' poverty line) (Figure 2). This implies that almost 300,000 individuals in Lebanon are unable to meet their most basic food and non-food needs. The dollar equivalent of the lower poverty line (when converted at the current official exchange rate) is US$ 2.40 per capita per day. (See Box A for a discussion of related methodological issues).

With a more 'normal' definition of the poverty line, namely, what the World Bank refers to as the 'upper' poverty line, the ***overall headcount poverty ratio reaches 28.5 per cent*** (accounting for about one million Lebanese)***.*** Consequently, the consumption levels for 20.5 per cent of the Lebanese population *fall between the lower and upper poverty lines*. At the current exchange rate, the upper poverty line translates into about US$ 4 per capita per day.

BOX A
Determining Poverty Lines in Lebanon Based on Household Composition

Most of the traditional methods for estimating poverty lines suffer from one or more of three problems:

(i) They ignore significant differences in consumption patterns and prices that exist across regions;

(ii) They do not account for the differing 'basic needs' requirements of different household members (young versus old, male versus female); and

(iii) They ignore the 'economies of scale' within households – the fact that non-food items can be shared among household members (i.e., items such as electricity or rent, which are 'non-rival' within the household, so that one person benefiting from the item does not decrease the consumption of another). Because of this factor, a given standard of living can be attained by lower expenditures per person in a larger household.

This study used a methodology that attempts to account for these problems. The estimated poverty lines account for regional differences in relative prices, activity levels as well as the size and age composition of poor households.

Using the raw data for 2004/05, the cost-of-basic-needs method was used to construct absolute poverty lines. Each resulting poverty line is household-specific, and is the sum of a food poverty line and a non-food threshold.

For each household in the sample, the study constructed its own food poverty line, which satisfied the household's minimum nutritional requirements based on its age, gender composition and location. To define this threshold, a food basket anchored to the minimum requirements of calories for individuals corresponding to different age brackets, gender and activity levels were constructed (using tables from the World Health Organization). Then, food poverty lines were set at the cost of the required calories, in accordance with how such calories are actually obtained in the sample (on average) by the second quintile. This food basket of the second quintile is thus costed using the differing prices for food in each region. The relative quantities observed in the diet of the poor (here proxied by the second quintile) and the prices that they face were maintained in constructing the poverty line.

The share of non-food expenditure was obtained by fitting Engel's curves of the food share to total expenditure. The food poverty line was augmented to yield two possible poverty lines. The 'lower' poverty line adds to the food poverty line the estimated non-food share of those individuals whose *total* expenditures are equal to the food poverty line. The 'upper' poverty line adds the estimated non-food share of those individuals whose *food* expenditures are equal to the food poverty line.

For extreme poverty, the poverty gap index (P1 index)—which measures the gap between the average income of poor individuals and the poverty line—is 1.5 per cent in 2004-5. The poverty severity index (P2 index), which measures inequality among the extremely poor, is only 0.43 per cent. These are relatively low values by middle-income country standards.

However, when considering overall poverty, the P1 index rises to 8.1 per cent, implying that many of the poor are clustered far below the upper poverty line. Consumption is also relatively unequal among the entire poor population since the P2 index is 3.3 percent. This level is relatively high in comparison to that in other Arab countries.

FIGURE 2

Distribution of Population between Poor and Non-Poor Categories, 2004-5
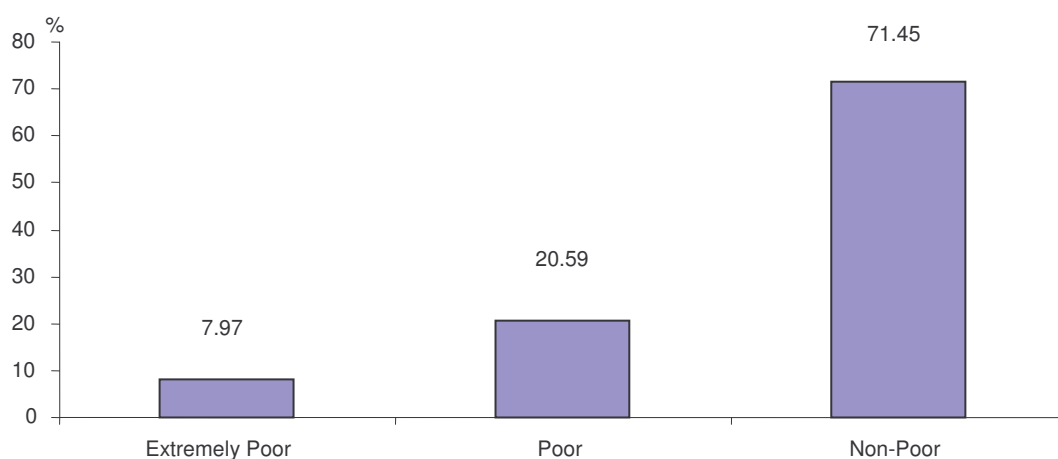
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Two governorates, Mount Lebanon and the North, witnessed a relative decline in their mean per capita expenditure (compared to the overall average) from 1997 to 2004-5 (Figure 3). *However, the decline was far more significant for the North* (from 0.8 of the mean to 0.6). Consequently, the latter witnessed a major deterioration in its ranking by mean per capita expenditure (from the third highest in 1997 to the lowest in 2004-5). The Beirut, South and Bekaa governorates recorded significant improvements in their mean per capita expenditures relative to those in the other three governorates.

FIGURE 3

Per Capita Nominal Expenditure (Relative to Mean Per Capita Expenditure) by Governorate in 1997 and 2004-5

Note: The South and Nabatieh Governorates were merged under the South Governorate in this Figure for better data comparability.

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and Household Living Conditions Survey (1997).

National accounts data suggest that real per capita private consumption grew at 2.75 per cent annually after 1997. **But projections in the full report indicate that the distribution of this growth across governorates was very uneven.** Beirut witnessed the highest growth rate in per capita consumption (five per cent annually). This is not surprising because of the large investment and widespread job creation that took place in the city after 1997. In addition, the growth rates in consumption expenditures for the Nabatieh, Bekaa and South governorates were higher-than-average (approximately four per cent). However, the opposite was the case for the North and Mount Lebanon. The North witnessed insignificant growth in expenditure (only 0.14 per cent).

Economic and financial developments since 2003 have been shaped by major changes in the political landscape. GDP growth has stagnated since 2004. In 2005, its annual rate fell to one per cent. According to Government reports, the July War might have provoked an 11 percentage point fall in GDP growth in 2006, namely, from a projected six per cent growth rate to a negative five per cent.[2] Notwithstanding the outcome of the Paris III Conference, national authorities expect 2007 also to be a very difficult year. The projected rebound of GDP growth in 2007 has been lowered from four to one per cent.[3] These changes have no doubt affected poverty rates in the country.

The lack of comparability between the 1997 and 2004-5 household surveys does not allow us to estimate precise changes in household consumption. However, the trends identified in Figure 4 and the order of magnitude of changes in poverty can be supported by macroeconomic evidence. Extreme headcount poverty is estimated to have declined from 10 per cent in 1997 to eight per cent in 2004-5 due to the growth in real per capita consumption described above. But extreme poverty is conservatively estimated **to have increased by nearly five per cent since 2004, mainly due to the contractionary effect of the July 2006 War on per capita household consumption, which is assumed to have declined in line with the country's sluggish growth performance**.[4]

FIGURE 4

Projected Evolution of Extreme Poverty in Lebanon (1997-2007)
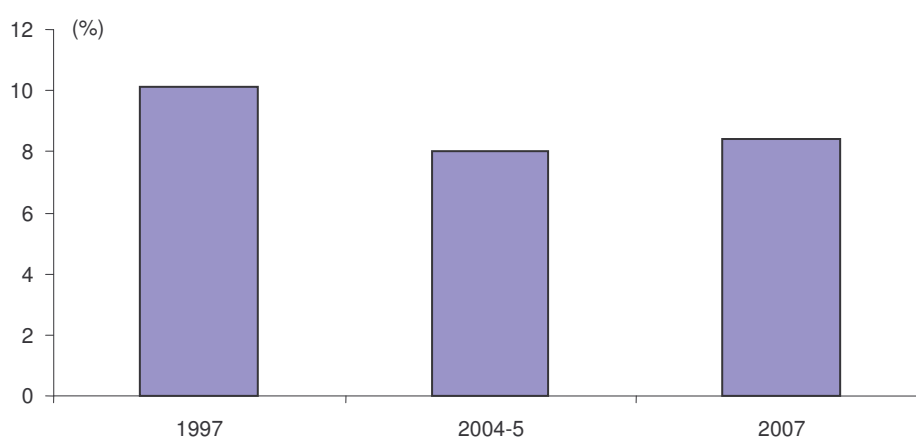
Notes: Models and assumptions are explained in detail in the main report. The principal assumption for backward projection to 1997 is that the size of the Lebanese population remained constant over the period from 1997 to 2004-5. For 2007, the main assumption is that any shock to per capita private consumption was of the same order of magnitude as that forecast for GDP. In both cases, the assumption is that income distribution remained relatively constant.

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and the national accounts data for 1997-2004 provided by the National Accounts Team within the Prime Minister's Office .

2.3 FINANCING REQUIREMENTS FOR POVERTY REDUCTION

The full national report applies a simple macro-model to calculate the gross investment requirements for halving extreme poverty by 2015, taking into account three income distribution scenarios,[5] population growth and the rate of depreciation of capital. This investment requirement is compared with the country's projected saving rate, which is assumed to follow its historical pattern. The difference between the two gives a shortfall, which must be filled by external development assistance or by borrowing (Table 2).

TABLE 2

The Estimated Investment and Resource Gap Required to Halve Extreme Poverty by 2015 under Three Different Growth Scenarios (% of GDP)

	Anti-poor Growth		Distribution-neutral Growth		Pro-poor Growth	
	Investment	Resource Gap	Investment	Resource Gap	Investment	Resource Gap
2005	21.5	8.5	17.2	4.2	15.4	2.4
2010	20.3	7.3	16.4	3.4	14.8	1.8
2015	19.2	6.2	15.6	2.6	14.1	1.1
Average	**20.3**	**7.3**	**16.4**	**3.4**	**14.8**	**1.8**

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5) and the national accounts data for 1997-2004 provided by the National Accounts Team within the Prime Minister's Office.

The financing gap per capita required to achieve investment and growth that would lead to the halving of the percentage of the extremely poor would be significantly greater if growth benefits the non-poor proportionally more than the poor (i.e., it is 'anti-poor'). When growth is pro-poor, only US$ 108 per capita are required annually, whereas this amount increases to US$ 213 and US$ 485 in the 'distribution-neutral' and 'anti-poor' growth scenarios, respectively. This implies that, *ceteris paribus*, since there are four million Lebanese, an additional US$ 1.5 billion would be required annually to achieve the same rate of poverty reduction if growth were anti-poor instead of pro-poor

The cost of compensating for or 'filling' the average poverty gap for extreme poverty is low. The report estimates that it would cost only US$ 12 per Lebanese resident per annum to lift all poor individuals out of extreme poverty. Filling the average poverty gap for all households under the upper poverty line would, however, be significantly more costly, at US$ 116 per Lebanese resident per annum.

The degree of fiscal space available to finance the investment needed to achieve the MDG target of halving extreme poverty by 2015 is a major cause for concern. This issue is particularly relevant in the aftermath of the significant economic impact of the July War, followed by the current political impasse.

These factors are likely to constrain Lebanon well beyond 2006 because of the time needed for the economy to recover from these setbacks. However, at US$ 12 per capita, ***the annual cost of eradicating extreme poverty in Lebanon is relatively modest***, representing only a fraction of the country's annual external debt obligations.

3 REGIONAL DISPARITIES

The distribution of extreme and overall poverty rates across governorates in 2004-5 is depicted in Table 3 and Figure 5. The main findings can be summarized as follows:

- A very low prevalence of extreme poverty (below one per cent) and overall poverty (below six per cent) in Beirut;

- A low prevalence of extreme poverty (2-4 per cent) and a below-average prevalence of overall poverty (close to 20 per cent) in Nabatieh and Mount Lebanon;

- A higher-than-average prevalence of extreme poverty in Bekaa and the South (10-12 per cent), an average prevalence of overall poverty in Bekaa (29 per cent) and a higher-than-average prevalence of overall poverty in the South (42 per cent).

- A very high prevalence of extreme and overall poverty in the North (18 per cent and 53 per cent, respectively).

- Although per capita consumption in Nabateih is very close to the national average, it is more equally distributed than in other regions so that the governorate's overall poverty rate, i.e., 19 per cent, is far below the national average.

- Ranking of governorates remains unchanged when P0 is compared to the other two poverty measures (P1 and P2). Thus, not only do poor households in the North governorate represent a large proportion of the population, but also their expenditure levels, on average, are far below the poverty line. Thus, the governorate's per capita poverty deficit is 2.4 times higher than the average across all of Lebanon (Table 3). Moreover, the share of the North governorate in overall poverty increases when distribution-sensitive measures are used, reflecting the very low standards of living of many of the poor in this region.

TABLE 3
Poverty Measures by Governorate, 2004-5

Governorate	Extremely Poor			Entire Poor Population		
	P0	P1	P2	P0	P1	P2
Beirut	0.67	0.07	0.01	5.85	0.95	0.24
Nabatieh	2.18	0.21	0.05	19.19	3.97	1.26
Mount Lebanon	3.79	0.69	0.21	19.56	4.45	1.52
Bekaa	10.81	1.89	0.53	29.36	8.05	3.06
South	11.64	2.00	0.53	42.21	11.35	4.22
North	17.75	3.65	1.08	52.57	18.54	8.63
Total	7.97	1.50	0.43	28.55	8.15	3.32

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

　　The North has 20.7 per cent of Lebanon's population but 46 per cent of the extremely poor population and 38 per cent of the entire poor population. The extremely poor households are also over-represented in the South and Bekaa governorates compared to their population shares. The 'moderately' poor households (those whose consumption lies between the upper and lower poverty lines) are also over-represented in the South (Table 4).

FIGURE 5

Extreme Poverty (P0-Lower Line) and Overall Poverty (P0-Upper Line) by Governorate in 2004-5
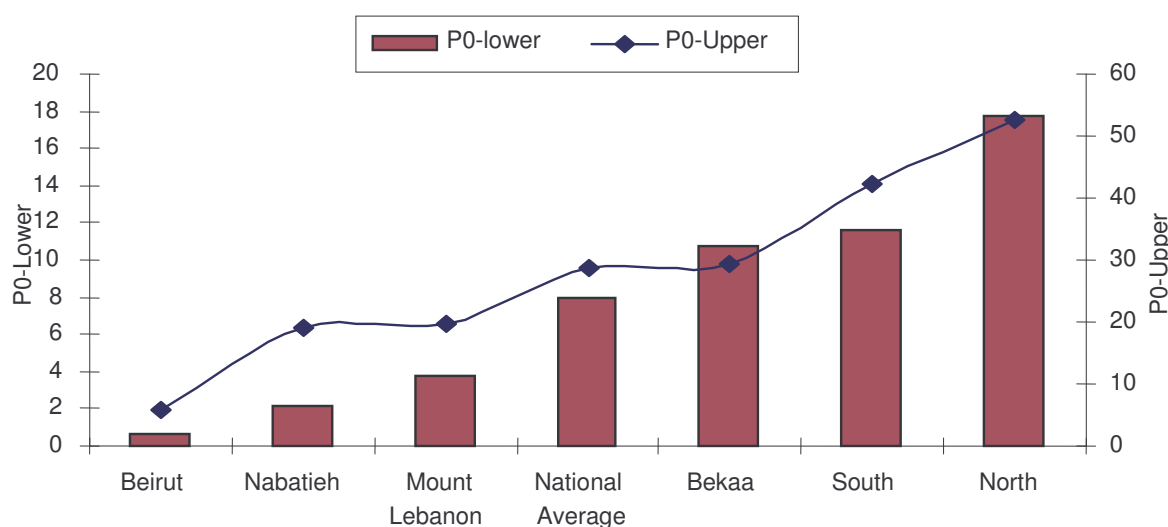
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5). Note that P0-lower is measured on the left axis and P0-Upper is read on the right axis.

TABLE 4

Distribution of Poverty Groups (%) across Governorates 2004-5

| Governorate	Extremely Poor (1)	Moderately Poor (2)	Entire Poor Population (1+2)	Proportion of Total Population
Beirut	0.9	2.6	2.1	10.4
Mount Lebanon	18.9	30.5	27.3	39.9
North	46.0	34.9	38.0	20.7
Bekaa	17.2	11.4	13.0	12.7
South	15.4	15.6	15.6	10.5
Nabatieh	1.6	4.9	4.0	5.9
Total	100	100	100	100

Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Figure 6 presents the overall headcount poverty within each governorate, i.e., at the level of strata. However, results presented here should to be interpreted with caution since the Living Conditions and Household Budget Survey was not designed to capture poverty rates at the 'strata' level.[6] Thus, t**he following findings serve primarily to enrich the analysis by indicating the order of magnitude of inter-governorate differences rather than aiming to provide an accurate measure of the poverty rates at the strata level** *per se:*

- There are significant differences in poverty within the North governorate: Tripoli City and the Akkar/Minieh-Dennieh strata have the highest percentages of overall poverty (Figure 6). In contrast, the 'Koura/Zgharta/Batroun/Bsharre' strata (which is also located in the North governorate) has a relatively low poverty rate (i.e., an overall poverty rate of 24.7 per cent (Figure 6); its extreme poverty rate, not shown in the Figure, is 4.5 per cent).

- The bulk of poverty across the whole country is concentrated in four strata: Tripoli City, Akkar/Minieh-Dennieh, Jezzine/Saida and Hermel/Baalbek are home to two thirds of the extremely poor and half of the entire poor population despite the fact they make up less than one third of the Lebanese population.

FIGURE 6

Overall Headcount Poverty Rates (%) by Strata, 2004-5
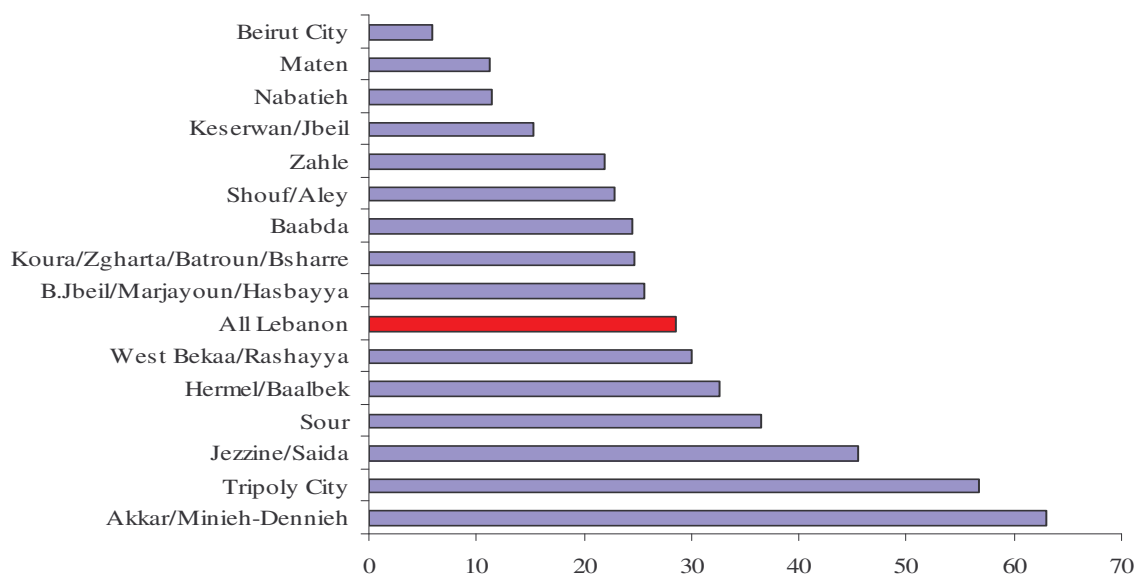
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Figure 7 plots strata-level overall headcount poverty against the Unsatisfied Basic Needs (UBN) index, a composite index that measures deprivation in living conditions and is also derived from the Living Conditions and Household Budget Survey.[7] Thus, it is easy to identify regions where human deprivation is more acute than income-based headcount poverty and vice versa. The scatter diagram plots measures at both strata and governorate levels (the former are depicted by diamonds while the latter are depicted by circles in the Figure).

The figure is split into four quadrants separated by the overall average UBN score and the overall headcount poverty rate for the country. Thus, areas located in the upper right quadrant are in the worst position, with both a high headcount poverty rate and a high UBN score. Conversely, the lower left quadrant represents the best position, with low scores on both the UBN and income poverty. The figure highlights the following two major conclusions:

- First, the level of deprivation in living standards is generally commensurate to the level of income-based headcount poverty (as indicated by the slope of the regression line and the intersection of the national averages for the UBN and headcount poverty rates at approximately the same values).

- Second, the correlation between both indicators becomes very significant once the Nabatieh governorate and its strata are excluded (the R-square jumps from 0.4 to 0.8). The particularly low rate of income poverty observed for Nabatieh could be explained

by a number of factors, including the relatively low level of inequality and the high incidence of external migration and remittances. However, this latter hypothesis remains to be validated by further social research.

FIGURE 7

UBN and Overall Headcount Poverty (% under upper poverty line) in 2004-5
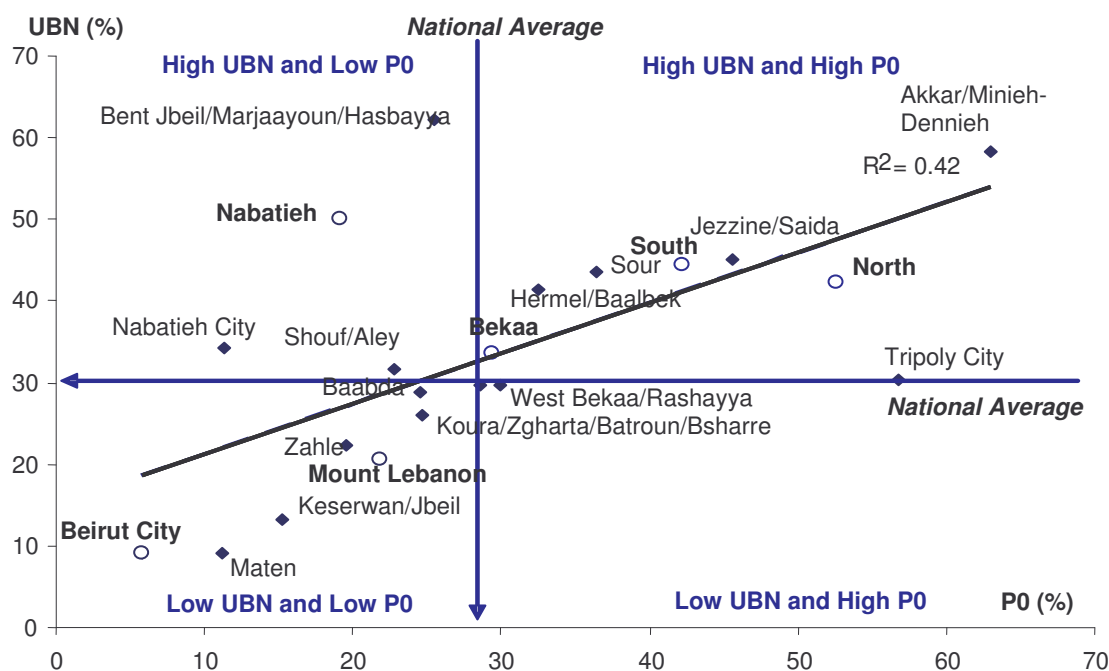
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Governorates differ not only in their levels of per capita consumption, inequality measures and poverty measures, but also in how much any given growth rate or inequality reduction could reduce poverty levels. The North governorate has the least elasticity with respect to mean consumption for both the headcount rate and the poverty gap. This implies that the impact of growth in expenditure would be smaller compared to such effects in other governorates, even with the same rates of growth. For example, for extreme poverty, the headcount ratio would decrease by only 2.4 per cent for every one per cent increase in income in the North.

But poverty would be responsive to reductions in inequality in the North. For a one per cent reduction in inequality, as measured by the Gini Index, there would be a 16 per cent reduction in poverty. But inequality is also a problem in other governorates. For a similar drop in inequality in Beirut, for example, there would be a 28 per cent reduction in poverty.

4 POVERTY CORRELATES

Unemployment rates in Lebanon are high among the poor. In addition, the majority of the employed poor are unskilled workers. Gender also affects unemployment rates, especially

among women in poor households. One quarter of the women in poor households are unemployed, with slightly higher unemployment rates in the South and Mount Lebanon governorates (where about one third of poor women are unemployed).

Youth unemployment is aggravated by poverty; it is a factor that reproduces poverty but it is also a manifestation of it. Half of extremely poor educated youth (i.e., aged 15-24 years and holding a secondary degree) are unemployed and one third of extremely poor university graduates are unemployed. This contrasts with the situation that only one out of five non-poor university graduates are unemployed. The unemployment rate for non-poor persons holding a secondary degree is half the rate for the extremely poor.

Thus, it seems that even if a poor person were able to break from the vicious cycle of lack of education and poverty, he could not easily gain access to job opportunities commensurate with his higher educational level.

Households affected by a combination of adverse factors face the highest risk of poverty. For example, a person's location of residence can interact with his labour-market profile to produce different welfare outcomes across individuals.

The *salaried* employment category predominates over other employment categories for the non-poor group (accounting for 53.7 percent of all the non-poor in Lebanon). But employees paid on a weekly, hourly or piece-rate basis are the categories most commonly occupied by the poor: such employees constitute more than one third of the working poor. Another third of the working poor are self-employed.

The category of non-salaried employees has the highest risk of poverty, with one out of six workers in this category being poor. This is true for all governorates, particularly in Bekaa and the North. The poverty rate among non-salaried employees is as high as 31 percent in Bekaa and 21 per cent in the North.

When workers are classified by economic sector, agriculture and construction exhibits the largest shares of extremely poor workers. Figure 8 confirms this result by showing poverty rates by economic activity of household heads. Extremely poor workers are over-represented in agricultural activities by more than 12 percentage points and over-represented in construction by about nine percentage points. In the North governorate, one out of four workers in agriculture and one out of five in construction are likely to be poor.

Households headed by individuals who have less than elementary education constitute 45 per cent of all the poor (Figure 9). This suggests that poor households can be identified partly by the education level of the head of the household. Another implication is that programmes to improve educational institutions—particularly those providing technical training and helping to retain children in school—represent social investment programmes with potentially very high long-run returns.

Moreover, the more developed a region, the stronger the impact of lack of education on living standards. Beirut is the typical case, where the illiteracy rate of the poor is the highest (38 percent). In contrast, the North governorate exhibits a weaker correlation between lack of educational attainment and poverty since agricultural activities, which show generally low returns to labour, are more dominant there.

FIGURE 8

Extreme Poverty Rates by Economic Activity of the Head of Household (2004-5)
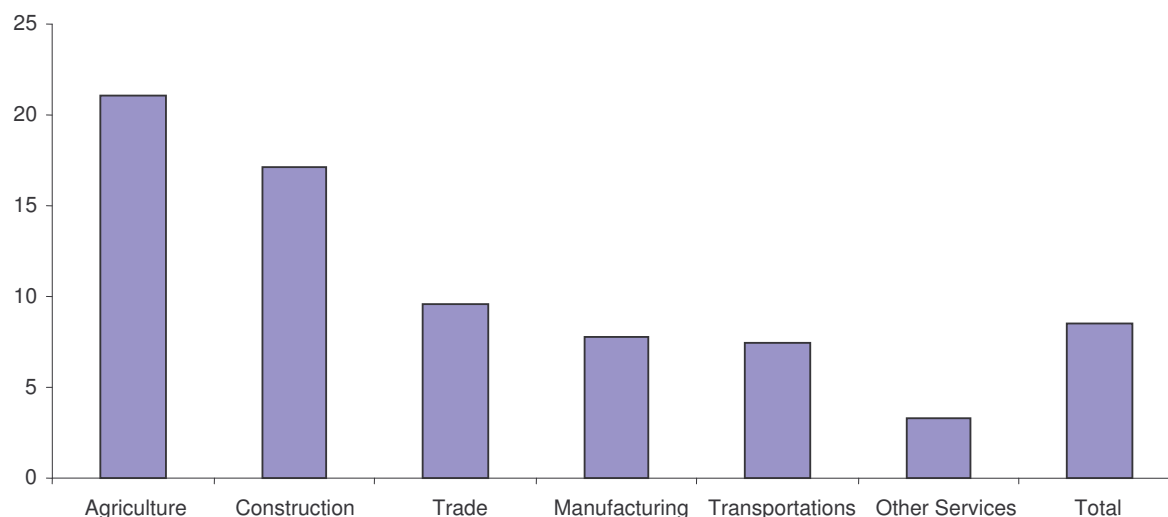
Source: Authors estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

FIGURE 9

Extreme Poverty Rates by Educational Status of the Head of Household (2004-5)
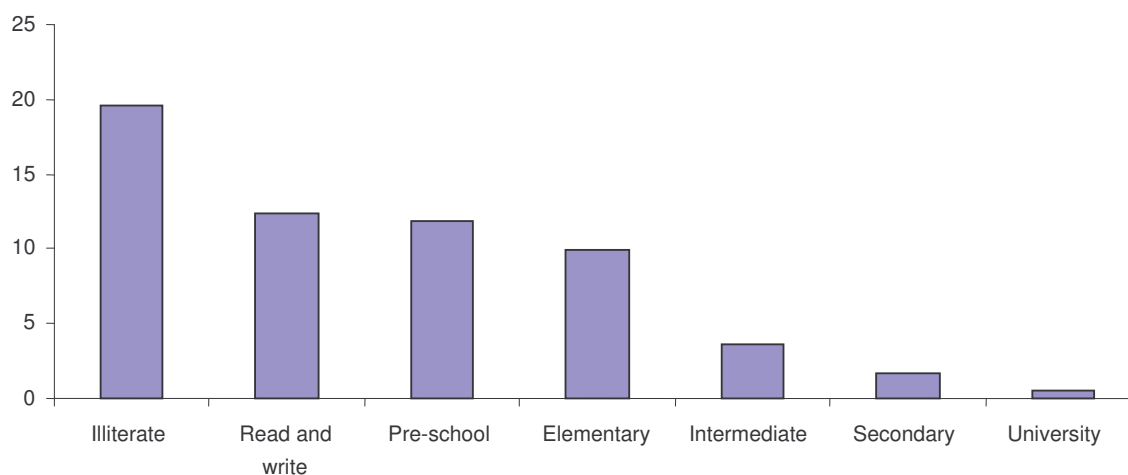
Source: Authors' estimates based on CAS, UNDP and MoSA Living Conditions and Household Budget Survey (2004-5).

Poverty correlates closely with school participation. There is a lower likelihood of school enrolment, attendance and retention for poor children; and the gaps between poor and non-poor in enrollment rates widen from elementary to intermediate to secondary education. Only one poor child out of two is enrolled in intermediate schools and only one poor child out of four is enrolled in secondary schools.

The corresponding ratios for the non-poor are three out of four for intermediate schools and one out of two for secondary education. The poor children in the North governorate are the most disadvantaged: only one third of them aged 12-14 years are enrolled in intermediate schools. **The persistence of inequities in educational attainment at the intermediate and higher levels highlights the need for more effective public intervention to improve educational outcomes for poor students.**

Widowed heads of households with children are more likely to be poor. Households headed by widows with more than three children are highly over-represented among the poor; their share among the poor is five times their population share. Households headed by widows with one to three children are also over-represented among the poor, i.e., by five percentage points higher than the average.

Thus, welfare levels differ significantly among households when the gender of the household head is combined with marital status and the number of children. One conclusion is that targeting female widowed heads of households with more than three children should be a priority.

This study used multivariate analysis to assess, *ceteris paribus*, the impact of changes in poverty determinants on the probability of individual household members being poor. There are three main results. First, changes in family size affect poverty. A newborn child significantly increases the risk of a household being in poverty (the elasticity of total household consumption with respect to household members is -0.5). Second, keeping household size and other characteristics constant, households with larger numbers of self-employed members, non-salaried members or members engaged in trade-related activities are more likely to be poor. Conversely, households having members who are employers or salaried workers have a one-third lower likelihood of being poor.

Third, poverty is affected by a household's place of residence. ***Households in the North are four times more likely to be poor compared to households (with a similar set of characteristics) that reside in Beirut.*** The latter factor suggests the presence of significant regional effects (differences in economic returns), which determine, to a large extent, differences in poverty rates across regions.

5 ELEMENTS OF A POVERTY REDUCTION STRATEGY

Lebanon is fully capable of meeting the MDG target of halving the proportion of people living in extreme poverty by 2015. It can also make substantial progress in reducing inter-regional and intra-regional disparities in poverty.

Given the complex picture of poverty in Lebanon, a national poverty reduction programme would have to be both comprehensive and flexible. It would have to address the needs of both the 28 per cent of the population who cannot satisfy their basic needs and the eight per cent who cannot even meet their basic food requirements (i.e., the extremely poor).

An advantageous starting-point for Lebanon is that extreme poverty is relatively shallow. As stated earlier, the cost of eliminating the average poverty gap for extremely poor households is low: it would cost only US$ 12 per resident Lebanese per annum to lift all poor individuals out of extreme poverty. However, the average poverty gap for all households under the upper poverty line is estimated to be US$ 116 per resident Lebanese per annum.

In addressing poverty, the country's strategy would also have to put a priority on addressing inter-regional and intra-regional disparities, which hamper opportunities for generating growth in incomes in certain governorates and strata. Finally, in order to enable poor households to take advantage of economic opportunities, Lebanon's poverty-reduction programme would have to focus efforts on building up the human capital of the working-age population. This would enable the working members of poor households to secure more productive employment.

This Country Study attempts to sketch out only the major pillars of a poverty-reduction strategy for Lebanon. Further analysis and discussion will be needed to elaborate the specific programmes and policies within each of the pillars. Following are what we propose as the five major pillars:

1. Inclusive and Sustained Growth: This emphasis involves implementing an economic agenda that can both lay the basis for more sustainable growth in jobs, productivity and incomes and direct greater benefits to poor households. Attaining such an objective would require identifying the policies that can expand public investment and encourage greater private investment as a means to stimulate growth. Critically, it would also imply identifying the necessary sources of financing for carrying out public investment or providing more incentives for private investment.

2. Expanding Educational Opportunities: Concerted efforts should be undertaken to ensure that the poor, both women and men, enroll in and stay in schools. This is essential for enabling them to have better access to social and economic opportunities in the future. This is also essential for raising labour productivity and stimulating higher rates of economic growth in Lebanon.

3. Promoting More Balanced Regional Development: The poverty profile developed by this study indicates that greater efforts need to be directed to reversing growing regional disparities in incomes, opportunities and services. Some regions, such as the North, are clearly lagging behind in development and thus have large pockets of poverty.

4. Focusing Resources on Poor Households: The existence of sizeable, but manageable, differences in living standards across strata within governorates in Lebanon implies that geographic-based targeting policies could play an important role in poverty reduction. What we describe as 'narrow geographic-based targeting' (namely, at the level of the strata) is more likely to be effective in reducing both under-coverage and leakage errors. Moreover, policymakers could reduce leakages of benefits to the non-poor from poverty-reduction programmes by eliminating benefits to people whose incomes are known to be high, such as employers (i.e., the self-employed who employ others) or by using a Proxy Means Test to identify eligible persons. Broad targeting methods could also be used to direct more benefits to agricultural and construction workers, most of whom tend to be casual and unskilled workers. These two occupations represent 38 per cent of all the poor. In Section 5, below, we elaborate on such targeting issues.

5. Monitoring Outcomes: In order for any poverty-reduction programme to be successful, an effort should be undertaken to improve the quality and frequency of data collection and the monitoring of outcomes, especially at the regional and subregional level. It is important to be able to continuously update information and adapt the strategy

according to changing economic and social conditions in Lebanon. A major recommendation in this regard is that the next household budget survey be designed to more accurately capture household living conditions and expenditures at the strata level.

6 TARGETING STRATEGIES

For this Country Study, we concentrate our attention on the general policy issue of targeting public expenditures to poor households. Other policies that will be critical to the success of a poverty-reduction strategy for Lebanon, such as fostering growth and providing greater access to educational opportunities, will have to be elaborated in ensuing studies and reports.

If interventions to reduce poverty are to be effective as well as financially feasible, they must be based on proven mechanisms for targeting resources and assistance to poor households. Although the explicit goal of many types of interventions is to reduce poverty, they are likely to benefit some non-poor as well. Since funding for such programmes is usually limited, steps must be taken to target available benefits as effectively as possible toward those who need them most.

Direct targeting is based on clearly identifying poor households or individuals (i.e., identifying that their income is below the poverty line). If providing assistance directly to the poor is not feasible, intervening on the basis of their characteristics might be required. We refer to this approach as 'characteristic targeting'. For instance, if the poor are concentrated in certain regions or districts, the provision of public services to those areas could be increased.

However, characteristic targeting has two potential drawbacks. First, some non-poor households could possess the same characteristics as the poor and, hence, receive benefits (we call this 'leakage'). Second, not all poor households might possess the characteristics necessary to benefit from the intervention, and consequently might not be reached (we call this 'under-coverage'). The success of characteristic targeting depends on the ability of programme designers to minimize these problems.

6.1 TWO APPROACHES TO TARGETING: BROAD AND NARROW

Targeting poverty-reduction programmes to a subgroup of the population has an intuitive appeal for policymakers, but it also poses considerable difficulties. Direct targeting explicitly identifies individual households as poor or non-poor and directly provides benefits to the former group and tries to withhold them from the latter. The specific form of such targeting depends on the ability of governments to identify the poor.

If beneficiaries can be identified on a household or individual level, transfer payments or some other forms of direct assistance could be mobilized to reduce their vulnerability. For example, the provision of food or medical care to elderly and disabled individuals, to households that display clear signs of malnutrition or to individuals who have special needs, such as pregnant and lactating women, are all forms of the direct targeting of assistance. However, a serious problem affecting direct targeting is that the methodology, or 'screen', needed to identify the poor, such as their level of income, can be expensive to implement.

In practice, there are two alternatives to direct targeting of the poor based on income measures. The first involves targeting *types of spending* and can be called 'broad targeting'.

Under this approach no attempt is made to reach the poor directly as individuals. Instead, programmes hope to achieve gains by targeting types of spending that are relatively more important to the poor. Spending on basic social services, such as primary education and primary health care, is one example. Directing resources to rural development, because poverty is often concentrated in rural areas, is another.

The second approach entails targeting _categories of people_. Under this approach, which can be called 'narrow targeting', benefits are directed to certain types of people. Examples are food stamp schemes targeted to mothers in food-insecure communities or innovative micro-credit schemes aimed at rural landless women. In Lebanon households with a head who has less than an elementary education constitute 45 per cent of all the poor. So targeting by the educational level of the household head could be effective. Also, while targeting female-headed households in general might not make sense, directing resources to households headed by female widows with three or more children would be much more efficient.

6.2 TYPES OF NARROW TARGETING

Narrowly targeted schemes are based on one of two principles—or a combination of both. The first is _indicator targeting_ (also called categorical targeting). Such an approach identifies a characteristic of poor people (an indicator) that is highly correlated with low income but can be observed more easily and more cheaply than income. The indicator is then used as a proxy for income to identify and target poor people. A typical example would be a region of residence identified as particularly poor. Alternatively, such indicators as landholding class, gender, nutritional status, disability or household size could be used to identify beneficiaries.

In Lebanon households living in the North governorate account for 46 per cent of the extremely poor and 36 per cent of the poor. So channeling a disproportionate share of public resources to the North would make sense for a national poverty-reduction programme. However, narrower geographical targeting, such as at the level of strata, would be more efficient.

For example, some strata in the North, such as Tripoli city and Akkar/Minieh-dennieh, have the highest incidences of both extreme and overall poverty. While the Akkar/Minieh-dennieh strata accounts for 10 per cent of the governorate's population, for instance, it is home to 25 per cent of its poor. Together, the strata of Trípoli City, Akkar/Minieh-dennieh, Jezzine/Saida and Hermel/Baalbek account for two thirds of the poor throughout all of Lebanon.

The second approach to narrow targeting is _self-targeting_. Instead of relying on an administrator to choose participants, such an approach seeks to have beneficiaries select themselves through creating incentives that would induce the poor and only the poor to participate in a programme.

For example, public employment schemes use work requirements to help screen out the non-poor while subsidy programmes support items that the poor consume but the rich do not. In Lebanon, public employment schemes could be designed, for instance, to provide temporary jobs to poor agricultural and construction workers, who are over-represented among the poor. Other screening devices rely on waiting time, stigma and lower-quality 'packaging' of goods and services to dissuade usage by the non-poor.

Both types of narrow targeting offer the hope of avoiding two commonly identified errors of targeting: 1) a leakage of benefits to the non-poor, which is measured by the ratio of non-

poor beneficiaries to total beneficiaries; and 2) under-coverage of the poor, which is measured by the ratio of poor beneficiaries to the total poor population.

One drawback of indicator targeting is that not all of the poor can be identified by the same indicators. For example, even though most countries have regions that are poorer than others, not all of the poor live there, nor do all the rich live elsewhere. Hence, geographic targeting can often benefit some of the rich and can bypass—and perhaps even tax—some of the poor who live in the better-off areas (Datt and Ravallion 1993; Ravallion 1995).

Narrow geographical targeting at the level of the village or the urban community could reduce the leakage of benefits to the non-poor in regions where, because of common agro-climatic or socioeconomic conditions, the standard of living in the majority of the households in most villages and urban communities is similar. The households in these villages could often have similar sources of income, and could be affected by the same conditions, such as road conditions, the distance to the nearest town, and the availability of public facilities for health, education and water supply.

Common methods of assessment can obscure some of the potential benefits of narrow targeting. Assessments of the benefits from geographical targeting provide an example. Several studies have examined the potential impact on poverty of allocating a predetermined budget optimally across regions. But the static gains of such an allocation are often found to be modest, reflecting, in essence, that the poor are heterogeneous.

Recent work, which allows for gauging the potential dynamic effects of programmes, suggests, however, that static assessments can greatly underestimate the long-term benefits. Gains could percolate through and strengthen over time as a result of the positive external effects of development in poor regions on the productivity of the private investments by poor households.

Measuring such effects is difficult, however: it requies data that are often unavailable. In a study assessing the effects over time of development programmes that were geographically targeted to poor areas in China, Jalan and Ravallion (1998) found the expected imperfect coverage of the poor and leakages to the non-poor. But they also found that the programmes had a positive impact on growth rates in the targeted areas. In this case, the long-term gains to the poor were higher than the short-term gains.

A thorough examination of Lebanese data for the purpose of constructing a comprehensive set of policies to reduce poverty is beyond the scope of this study. However, the poverty profile for Lebanon provides a rich description of the characteristics of the poor. These features could be used to identify the most efficient mechanisms for channeling resources to poor households, beginning with targeting, for example, the poorest strata in the country.

However, macroeconomic policies—fiscal policies in particular—will have to be revised in order to mobilize the resources necessary to finance the needed increases in public expenditures on social safety nets and public investment in social services. And in addition to implementing such social policies, national policymakers will have to identify economic policies that can stimulate a broad-based, inclusive pattern of economic growth, which can raise the standard of living of poor households in the regions and economic sectors in which they are located.

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NOTES

1. Taking into account household size, age and gender composition, consumption estimates here include food and non-food consumption, imputed rents, imputed value of home-grown food and in-kind transfers received by households. However, due to data limitations, the flow of services from consumer durables is not taken into account, with the one exception of services provided by means of transportation (such as cars and trucks). Actual consumption does not include gifts to other households of food and other commodities, advance payments and purchases of durables.

2. Government's Paris III document.

3. Use of Fund Resources for Emergency Post-Conflict Assistance, IMF (2007).

4. The projected five per cent rise in extreme poverty in 2007 is based on deliberately conservative assumptions.These include assumptions about equivalent declines in household consumption and GDP and a low elasticity of poverty with respect to changes in consumption.

5. Following Kakwani and Son (2006), the methodology used here takes account of changes in the growth elasticity of poverty over time for the head-count ratio. Economic growth may be called pro-poor (anti-poor), if it is accompanied by a decrease (increase) in inequality. Growth may be called distribution-neutral if there is no change in inequality. Here we use a simple growth model that assumes that the output-capital ratio is constant. For Lebanon the ratio was estimated to be 1/4. We assume that the growth rate of capital per person depends positively on gross investment as a share of GDP (denoted as i) and negatively on the rate of population growth (n) and the rate of depreciation of capital stock (d), which is assumed to be 1.5 per cent. The full equation is as follows: $i = 4(g + n + d)$.

6. A strata is a lower level of government than a governorate but higher than a district. Each Lebanese governorate (with the exception of Beirut) is typicall composed of 203 strata.

7. The UBN methodology gives each household 11 scores, corresponding to 11 individual indicators. The household also obtains four scores corresponding to four indices. Finally, it obtains one composite score for the living conditions index, which is then used to classify households into categories depending on the degree of satisfaction of basic needs. The UBN index here includes the households that are at both a 'very low' and a 'low' level of satisfaction.