Child poverty: recent developments and determinants*

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1. Introduction

The issues of poverty and social exclusion are often central to social and political debate. The arguments put forward in Greece have been reinforced in recent years by the findings of a number of studies, now that the availability of statistical data has enabled an in-depth investigation of several aspects of poverty and social exclusion. Thus, the quantitative dimensions, structure and characteristics of poverty have often been investigated both for the total population and for certain vulnerable social groups, such as migrants, the elderly, etc.

However, in spite of the progress made in the research of poverty issues, there is still a serious deficiency in the relevant literature for Greece: very few studies have investigated (and those that have, only in piecemeal fashion) the dimensions and the characteristics of *child* poverty. This shortcoming can, to some extent, be attributed to the relatively "moderate" dimensions of the problem in Greece, compared with other EU countries or with the EU average.[1] However, the latest data cast a considerably different light on the situation. *Child* poverty in Greece has been increasing in recent years, a fact which, in itself, warrants in-depth investigation. The present analysis aims, to the extent possible, to uncover the underlying causes of this trend.

1 A few earlier studies on Greece had recorded a relatively small or even negative correlation between poverty and the existence of children in the household, a finding which some researchers interpreted as denoting a kind of family planning on behalf of Greek couples, who seemed to put off getting married and having children until they could provide the latter with a satisfactory standard of living (employment, income, etc.).

Our main objective will be to analyse and comprehend the issue of child poverty, which in Greece apparently concerns 23% of all children aged up to 17 years (on the basis of the distribution of monetary income in 2006), although the problem is noticeably less widespread on the basis of the distribution of consumption expenditure. Establishing the real dimensions of poverty, analysing in detail the characteristics of the child population living in a state of economic precarity and poverty, and investigating the factors that contribute to the development of such phenomena will be some of the additional objectives of our analysis.

The study is structured as follows: Section 2 presents the statistical data, the methodology and the various difficulties involved in any attempt to record and analyse child poverty. Section 3 presents comparative data for the EU Member States and the relative position of Greece. Section 4 identifies, in a descriptive manner, the groups at high risk of child poverty, based on geographic, demographic, occupational and other social and economic characteristics of the households and their members. Section 5, with the use of alternative econometric models, investigates the factors that influence the risk of child poverty, as well as the relative contribution of the respective factors. The findings of this analysis can help to evaluate different social policy measures aimed at reducing child poverty. The last section of the study provides a summary of the conclusions drawn and offers certain policy proposals.

2. Child poverty measurement and statistics

It is widely recognised that poverty is a multidimensional phenomenon and that any attempt to investigate and analyse child poverty in particular must inevitably take into account a number of methodological difficulties, starting with the very definition of poverty and the method used to measure it, i.e. how to estimate the total number of poor and express the relevant information with an easy-to-use statistical indicator (Sen, 1983, 1992, Atkinson, 1987). Both these issues are examined immediately below, together with a presentation of the statistical data.

2.1 Definition and measurement of child poverty

Poverty in any given society is generally recorded in either "absolute" or "relative" terms. According to the concept of *absolute* poverty, people are considered poor when they cannot secure the minimum resources necessary for their survival, i.e. for their physical wellbeing and health. The concept of absolute poverty therefore places an emphasis on basic needs, overlooking social and cultural ones. In order to escape from absolute poverty, an individual must have access to and be able to afford a minimum "basket" of quantitatively and qualitatively defined goods and services, comprising food, clothing, shelter, etc. The monetary value of this basket corresponds to what is commonly referred to as the poverty line. The consensual understanding is that absolute poverty in any society is intolerable and that its eradication should be a primary objective of economic and social policy.

According to the concept of *relative* poverty, people are considered poor when their income does not allow them to maintain a quality of living that is consistent with the customs and standards of the society in which they live. Being

defined in relation to the economic and other characteristics of the group to which the individual belongs, the *relative* poverty line therefore varies across countries, social groups, and even time. The concept of relative poverty acknowledges the existence not only of biological, but also of social and cultural needs, which to a certain extent make an individual a "complete" and productive member of society. Hence, the relative approach to poverty focuses on the economic inequality between the members of a social group, whereas the absolute approach stresses economic insufficiency.

It follows, from the above that the first step in defining and measuring poverty is to establish a poverty line or threshold, relative to which poor households can be distinguished from their non-poor counterparts. Some studies choose the official, state-defined minimum income for an individual or household as their poverty line. For instance, in earlier studies on the United Kingdom, the poverty line was based on the eligibility criteria for "National Aid", whereas in France several studies adopted the minimum wage as their poverty line. In yet other cases, poverty lines have been based on the observation that the poor have a different consumption pattern than the rest of society, spending a large part of their income on food. Thus, anyone who spends a significant part of his income on food, clothing and other essentials would "qualify" as poor. Finally, some researchers, who question the reliability of income and consumption indicators as a means of defining and measuring poverty, consider to be poor those who are deprived of certain goods or amenities (e.g. a refrigerator, indoor plumbing, the ability to take a vacation, etc.).

Absolute poverty lines are rarely used in the international literature —especially in reference to developed countries— because of numerous difficulties associated with their formulation and because of the subjectivity and arbitrariness involved in their selection. The present study therefore uses the widely accepted definition of the poverty line, adopted by most international organisations (OECD, etc.) and by Eurostat, the statistical office of the European Communities. *On the basis of the relative poverty concept* and this definition, the poverty line in a given country is defined as 60% of the median of income distribution for its total population. Having defined the poverty line, it is then easy to determine whether an individual is "poor" (if his/her income is below the poverty line) or "non-poor" (if his/her income is above it).[2]

The concept and the definition of child poverty are no different from those of overall poverty, which refer to the total population. Furthermore, in the international literature, poverty is nearly always defined at the household rather than the individual level, as it is fair to assume that the incomes of all members of a household are redistributed between them and that many goods and services are consumed collectively. Besides, it would be a paradox to have both poor and non-poor individuals within a same household. Having therefore adopted the household as the unit of reference for the purpose of defining poverty, a child can be considered poor if it

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[2] All the studies on poverty in Greece are based on the relative concept and define the poverty line as a percentage of the mean or the median of the distribution used in each case (*per capita* income, *per capita* consumption expenditure, etc). The median corresponds to the income of the "middle" individual or household, with 50% of the population living above it, and the other 50% living below it.

belongs to a poor household.[3] Nevertheless, a more comprehensive definition of child poverty should, apart from the total income of all household members, take into account other parameters, such as the household's living and housing conditions, the health of its members, the socioeconomic environment and the household members' relations with other individuals, etc. Besides, wellbeing, especially where children are concerned, is not only determined by the household's level of disposable economic resources, but by other important factors, such as the presence of both parents, access to specific goods, the existence of friends and relatives, etc. This need for a broader definition of child poverty has been underscored in the reports of most international organisations dealing with the issue (UNICEF, the World Bank, the United Nations, the European Commission, etc).[4]

In spite of efforts to broaden the concept and content of child poverty in recent years, the economic dimension is the one most widely referred to. We have therefore chosen in the present study to measure child poverty as the number of individuals up to age 15 (or alternatively up to age 17) living in families or households whose total income is below the poverty line (60% of the median of total income) as a percentage of the total number of children in the same age group. This child poverty indicator was opted for because, though lacking some of the advantages of other poverty indicators, it provides a relatively simple and clear indication of the dimensions of the phenomenon within a population. For our cross-country comparisons, we chose, in addition, to use the relative poverty gap, which provides an estimate of the intensity or "depth" of child poverty and, according to the Eurostat definition, is calculated as the

difference between the median income of persons below the at-risk-of-poverty threshold and the risk-of-poverty threshold, expressed as a percentage of the latter.

Finally, a few more observations must be made regarding the choices of the present analysis. For the reasons detailed above, the household is adopted as the unit of analysis. However, this approach has the drawback of placing equal emphasis on small and large households, especially in cases where the average size of rich and poor households is found to be systematically different. If, for instance, the average size of relatively poorer households is larger than the average size of the richer ones, the household level analysis will lead to an underestimation of poverty, compared with the individual level analysis and vice-versa. This is precisely why, as is often done in the international literature, we have chosen to use the number of members in a household as a coefficient for reweighting the household sample. Thus, in our analysis, a four-member household is taken into account four times more than a single-member one. However, regardless of whether the individual or the household is adopted as the unit of analysis, two other

3 The approach to child poverty on a household level has definite advantages, but also some serious drawbacks. For instance, some children living in non-poor households may in fact be deprived of adequate resources for their education, health, etc. and may therefore be in a real situation of poverty and deprivation. At the other extreme, some children living in poor households may have their own income, usually from an inheritance, and may not be poor. In addition, the approach at the level of the household assumes that the total income of the household is equally distributed among its members, irrespective of gender, age and other key characteristics, which in reality make for differences in needs and consumption patterns. For an analysis of this issue, see Bouzas (2006).
4 For a presentation of the alternative definitions of child poverty used by various international organisations and agencies, see Fajth and Holland (2007).

major considerations need to be addressed when analysing child poverty: (i) the existence of economies of scale in household consumption and (ii) the different needs of adults and children. In order to address these issues, we have chosen to use the so-called "family equivalence scales", which give weights of 1.0 to the head of the household, 0.5 to the other household members aged over 13, and 0.3 to children up to age 13.[5] This enabled us to calculate the number of *adults* to which the number of each household's members is equivalent. The household income was then divided by the number of "adult equivalents" in order to obtain equivalent current income or expenditure distributions that are comparable and suitable for use.[6]

2.2 Statistical data and selected variables

For our analysis of child poverty, we used data from the European Union Statistics on Income and Living Conditions (EU-SILC) and primary data from the latest available Household Budget Survey (HBS) conducted by the National Statistical Service of Greece (NSSG) over the period from February 2004 to January 2005. The EU-SILC provides comparable data on child poverty, based on the disposable *monetary* income of households in the EU countries, while the primary data from the HBS 2004/05 allow us, in addition, to estimate the dimensions and structure of child poverty on the basis not only of the distribution of households' *total* disposable income, but also of the distribution of their total consumption expenditure. Both these variables, apart from monetary data, also include imputed income and expenditure data, such as imputed rent due to owner-occupied housing, the consumption of own production

(mainly in the case of rural households), the provision of goods and services free-of-charge to the household by other households or enterprises, etc. Unlike what is observed in other countries, owner-occupancy and other imputed incomes are more widespread in Greece among poor households than among rich ones. Thus, an omission of these total real income (or consumption) data would inevitably lead to an overestimation of the total level of poverty in Greece and possibly to an erroneous analysis of its structure and characteristics.

The main objective of the EU-SILC survey is to study the living conditions of households and their members in relation to their monetary income, employment and working conditions, housing conditions, level of education and vocational training, state of health and various other social and economic indicators. This survey is the main source of comparable statistical data and indicators for the distribution of income, poverty, social cohesion and social exclusion at the European level. The EU-SILC replaced the European Community Household Panel (ECHP), which covered the 1994-2001 period and was the

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5 We chose to use Eurostat's family equivalence scales, which, as opposed to others, are based on the assumption that the economies of scale in household consumption are moderate (Hagenaars *et al.*, 1994). In the international literature, equivalence scale values usually range between two extremes: either no adjustment is made to the total household income based on the household's size and composition or per capita income is used and the existence of economies of scale in the consumption of goods and services is ignored.

6 In order to verify the reliability of the results, we tested their sensitivity to the various options of the analysis, such as the children's age limits (up to 7, 14, 16 years, etc.), the definition of the poverty threshold (40%, 50% of the median), the unit of analysis (individual, household) and the family equivalence scales. Of all these options, the different weighting scheme in the equivalence scales (for the purpose of calculating the number of household adult equivalents) is the factor which most modified the results.

major source of primary data for the analysis of inequality and poverty in the EU countries. The design and formulation of the survey questionnaires, in accordance with Eurostat guidelines and under its supervision, have presumably ensured the comparability of data across the respective countries. It is precisely for the purpose of comparative analysis of child poverty data across the EU that the following section uses the EU-SILC data released by Eurostat.

The main aim of the HBS is to enable the NSSG to revise the consumer price index by calculating new weighting coefficients for various categories of consumption expenditure. For a number of reasons, however, these surveys also happen to be the most suitable source of statistical data for the study of such social phenomena as inequality, poverty, social exclusion, etc. These are the only household surveys that simultaneously gather information on monetary and imputed consumption expenditure (broken down into some 900 different codes/items), income (broken down into some 70 different sources), housing facilities, consumer durables, as well as the socio-economic (occupational, demographic, educational, etc.) characteristics of the households and their members. The combination of these variables later in this study will allow us to identify the determinants of child poverty in Greece and specific groups at high risk.

Finally, two further methodological remarks need to be made regarding the statistical data of *both* aforementioned surveys (EU-SILC, HBS). The first remark concerns the *coverage* of the surveys: more specifically, given that only private households are covered, the survey data by definition exclude certain small, but particularly poor sections of the child population (children living in institutions and asylums, homeless children, etc.). In addition, it is fair to presume that the rather large group of (economic) migrants is underrepresented in the HBS sample.[7] Considering that Greece's migrant population has increased considerably over the last fifteen years and that their standard of living is noticeably worse than the average for the HBS sample, the actual dimensions of child poverty are probably even greater than those presented below.[8] The second observation concerns the *variables* used in the analysis (private consumption expenditure and disposable income). These variables do not include the value of goods and services provided for free by the State or government subsidies for certain goods and services. This omission would not have had serious implications, if the institutional framework governing the provision of these goods and services or if the extent to which they are used had been similar across households. This, however, is not the case.[9] For instance, large households (with four or more children) in Greece which, as shown by our analysis, are at a very high risk of child

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7 The *roma* are also underrepresented, as the number of children per *roma* household is considerably higher than the average for the total population. The number of children per migrant household is also above average (see Tragakis, 2006, Bank of Greece, *Annual Report* 2005, Table III.3, p. 108).

8 Zografakis and Mitrakos (2006) conclude that economic inequality is significantly higher among Greek households than it is among migrant households, whereas both poverty and poor housing and living conditions were found to be worse for migrants. As regards the dimensions of poverty, all of the relevant indicators show the migrant population to be affected twice as much as Greek households, although the factors affecting the at-risk-of-poverty rate are basically the same for both population groups. On the basis of the latest European Commission report, the poverty rate for households with children born outside the EU and living in Greece is 43.1% (European Commission, 2008).

9 Certain fragmentary studies from both the Greek and the international literature show that non-monetary government benefits usually have a positive redistributive effect.

poverty, are eligible for a number of subsidised or free services (reduced fares on public transport, lower utility rates, exemption from car registration fees, etc.). The fact that these benefits are not taken into account in the income and expenditure definitions obviously leads to an overestimation of the poverty risk, not only for the specific population group, but for the total population as well.

3. The dimensions of child poverty in EU countries

In recent years, EU Member States have become increasingly aware of child poverty, to some extent because of the dimensions of the problem, but also because of the worsening situation in some States.[10] Indeed, according to the latest European Commission report (European Commission, 2008), the need to substantially reduce child poverty and social exclusion in the EU has become even more pressing in the past decade, given that, in most countries, children are at a greater risk of poverty than the total population, while, in half of the countries in question, at least one in every five children lives below the poverty line. Furthermore, children growing up in conditions of poverty and social exclusion are less likely to perform well at school and to be healthy, and are likely to be more prone to delinquency and to have greater difficulty integrating into the labour market. Child poverty also has a negative effect on children's future life opportunities and future civic engagement.

In order to facilitate a comparative presentation and analysis of the dimensions of child poverty in Greece and the EU countries, Table 1 lists the per-

centages of children up to age 15 (out of total children of the same age group) living below the poverty line over the period 1996-2006. These figures, published by Eurostat, are based on the primary data for the distribution of monetary household income from the aforementioned ECHP and EU-SILC surveys.[11]

According to the data for 1996-2001, Greece was among the EU countries with a "medium" rate of child poverty, as opposed to other Mediterranean countries (Italy, Spain, Portugal), the United Kingdom and Ireland where the child poverty rate was higher, and the Scandinavian countries (including Denmark) where it was considerably lower. Specifically for Greece, the poverty rate among children aged 0-15 years ranged from 17% to 19% during this period, and was slightly lower than the poverty rate for the total population (20%-21%).[12] In contrast, the average EU child poverty rate was 19%-20% over the same period, i.e. some 4 percentage

10 For interesting analyses of the dimension and dynamics of child poverty in developed countries, see among others the collection of articles in Vleminckx and Smeeding (2001) and Bradbury, Jenkins and Micklewright (2001). From the mid-1980s to the early 2000s, child poverty, in relative terms, declined in only 3 of the 13 wealthy countries covered by Munzi and Smeeding (2006). As mentioned in the UNICEF reports (2005, 2007), some 50 million children in the developed countries of the OECD live below the poverty line. Despite the fact that the national income in most developed countries has doubled and sometimes even more than doubled since 1950, an important percentage of children live in families so poor that their health and development are threatened. Even larger is the percentage of children living in a state of relative poverty: although their basic needs are met, these children are deprived of activities and services that are considered standard for most children their age.
11 Based on EU-SILC 2006 data (2005 incomes), the monetary poverty line for Greece was €5,910 (annual income) for a single-member household and €12,411 for households with two adults and two children.
12 For a presentation of the dimensions of poverty for the total population, see Bank of Greece, *Annual Report* 2006, Box IV.2, pp. 140-145.

T a b l e   1

Child poverty in EU countries

(Children aged 0-15 living in poor households as a percentage of total children of the same age group)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Austria	18	15	15	14	12	13	..	16b	15	15	15
Belgium	15	14	13	12	11	12	..	16b	18p	18	15
Denmark	..	6	..	7	..	7	..	9b	9	10	10
Finland	5	5	5	7	6	9b	10	10	10b	10	9
France	16	16	16	17	18	16b	16	15	14b	14	13
Germany	15	15	13	13	13	14	..	..	..	11b	12
Greece	19	18	17	17	19	18	..	21b	20	19	22
Ireland	27	25	23	21	22	26	..	20b	22	22	21
Italy	24	23	21	22	25	25	..	..	25b	23	24
Luxembourg	14	16	20	19	18	18	..	15b	18	20	19
Netherlands	14	13	14	14	17p	17p	17p	18p	..	16b	14
Portugal	23	25	26	26	26	27	..	..	24b	23	20p
Spain	23	26	24	25	25	26	21b	19	24b	24	24
Sweden	..	7	..	7	..	7	10b	..	11b	8	14
United Kingdom	25	27	29	29	27b	23	23	22	..	23b	24
New Member States	..	..	..	..	..	19s	20s	20s	22s	24b	23
EU-15	19s	19s	19s	19s	20s	20s	..	19s	20s	18b	18
EU-25	..	..	19s	19s	20s	20s	..	19s	20s	19b	19

Note: Dates indicate the years when the survey was conducted, referring to the incomes of the previous year.
s Eurostat estimates; **:** not available; **b** break in the series; **p** provisional data.
Source: Eurostat (ECHP, EU-SILC).

points higher than the poverty rate for the total population.

However, as shown in Chart 1, Greece's child poverty rate (among children up to age 15) shifted upward after 2002, and in 2006 jumped to 22%, rising by three percentage points in just one year (from 19% in 2005).[13] Greece now has one of the highest child poverty rates in the EU-15, surpassed only by Italy, Spain and the United Kingdom.[14] The increase in the child poverty rate, from 20% in 2005 to 23% in 2006, among children aged up to 17 was similar. On the basis of the child poverty rates for 2006, Greece has some 380,000 children aged up to 15 (out of a total 1.71 million children in this age group) or 450,000 children aged up to 17 living below the poverty line. It should be noted that in the EU as a whole there has been no clear trend in the dynamics of child poverty over the past decade, based on the distribution of disposable monetary household income. [15]

Similar conclusions can also be drawn on the basis of the relative gap or "depth" of child poverty, which measures the distance separating the poor from the poverty line. The value of this indicator, when calculated for children aged up to 15, was 26% in Greece in 2006 (2005 incomes),[16] compared with 22% for EU-15 (EU-25: 23%).

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13 Child poverty declined slightly in most of the EU from 2005 to 2006. Apart from Greece, the only other exceptions in the EU-15 were: the United Kingdom, Italy and Germany, where child poverty increased by one percentage point, and Sweden, where child poverty climbed to 14% in 2006, from 8% in 2005. In the newer EU countries, child poverty increased only in Latvia and Hungary (to 25% in 2006, from 20% in 2005).

14 Among the twelve new EU countries, higher child poverty rates were recorded for Latvia (25%), Lithuania (24%), Hungary (25%), Poland (26%) and Romania (23%).

15 Greece's relative position appears to be even worse on the basis of the *absolute* child poverty concept, at least according to Munzi and Smeeding (2006) whose analysis shows Greece's absolute poverty rate among children up to age 17, at 31.6%, to be the highest in the eleven developed countries covered by their study (with an average of 12.5%). As a definition of absolute poverty, the authors adopted the official US poverty line for 2000, adjusting it for price levels and household size.

16 This means that half of the poor households with children aged up to 15 in Greece have an income equal to 74%-100% of the poverty line, while the income of the other half is below the 74% mark of this line.

Chart 1

Child poverty: Greece and EU–15

(Children aged 0-15 living in poor households as a percentage of all children in the same group)
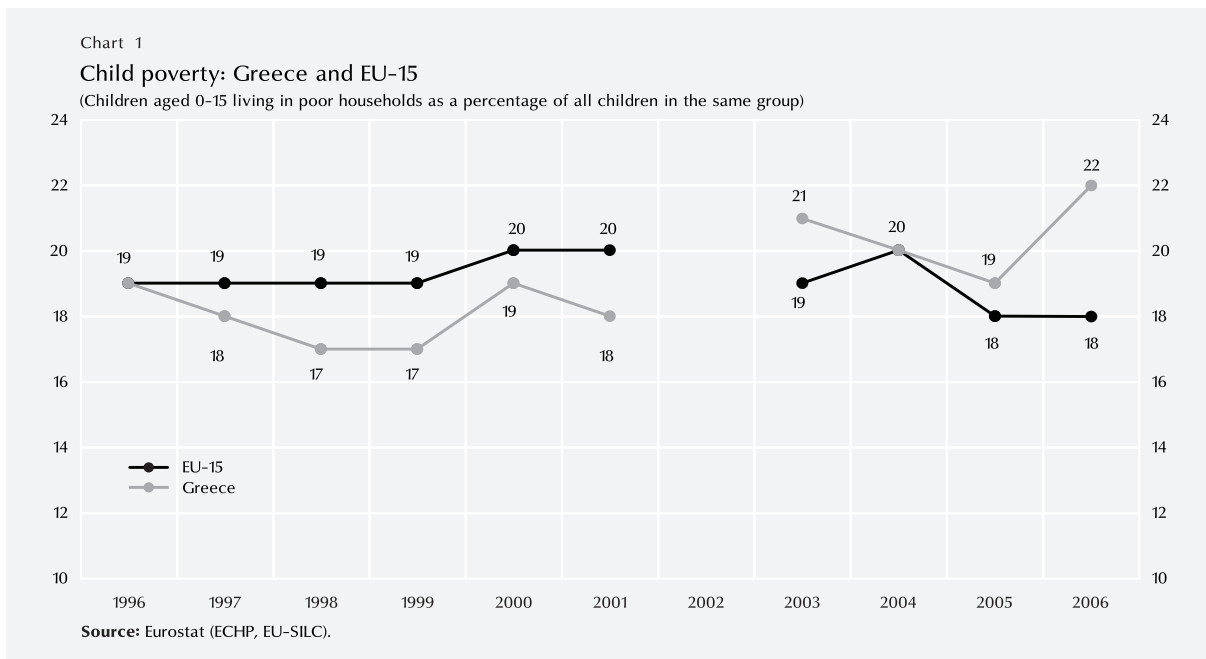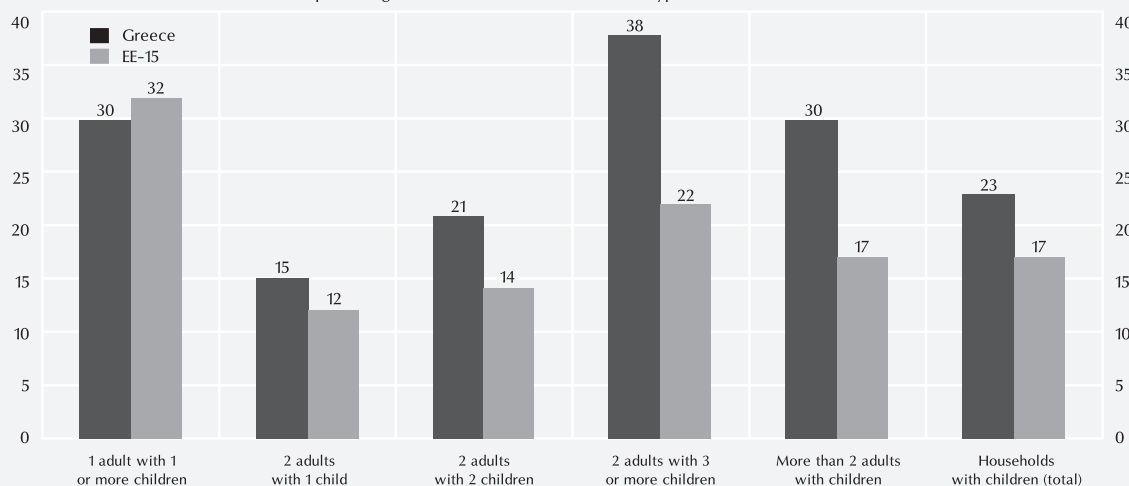

Source: Eurostat (ECHP, EU-SILC).

Chart 2

Poverty rates of households with children by household type: Greece and EU-15, 2006

(Poor households with children as a percentage of total households of the same type)

Source: Eurostat (ECHP, EU-SILC).

Throughout the last decade, this indicator has been considerably higher in Greece, compared with the EU average.[17]
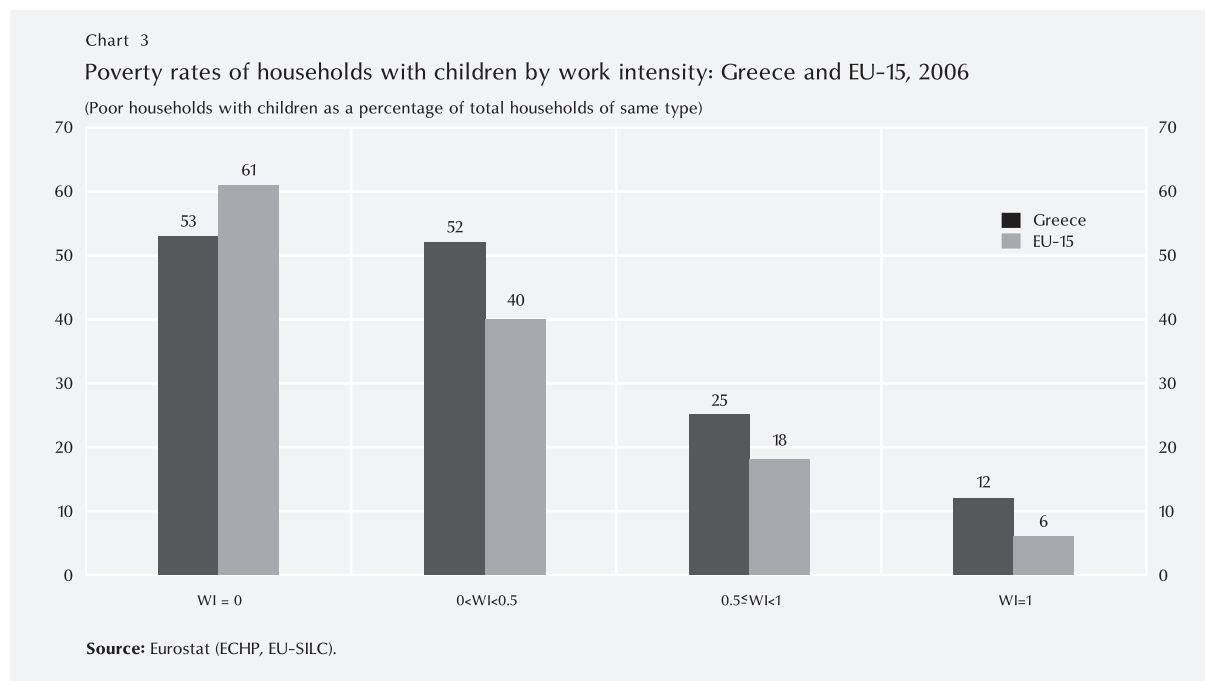
It is appropriate at this stage to introduce two important determinants of child poverty, both in Greece and the EU as a whole, on the basis of the same statistical data. These parameters are household composition and work intensity, and the role they play in shaping the dimensions of child poverty. Insofar as household composition is concerned (see also Chart 2) and based on the latest available data (for 2006), the poverty risk faced by single-parent households with dependent children is almost double the risk faced by total households in Greece and, even more so, in the EU as a whole. Single-parenthood has been correlated with poverty rates of 30% in Greece, compared with 32% in the EU as a whole.[18] In households with two adults present, the dimensions of child poverty increase

dramatically in relation to the number of children. In fact, the poverty rate nearly doubles when the number of dependent children rises from two (Greece: 21%, EU-15: 14%, EU-25: 14%) to three or more (Greece: 38%, EU-15: 22%, EU-25: 24%).

Finally, as shown in Chart 3, there is a definite positive correlation between work intensity in households with dependent children and the avoidance of child poverty. Indeed, the poverty rates drop significantly as the number of working

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17 On the basis of the latest available data for the EU-15, only Italy and Spain have a child poverty gap index higher than Greece's. The index value recorded for Greece in 2006 (26%) was the same as the average recorded for the 12 new EU entrants.

18 The percentage of total households with children accounted for by lone-parent households is much smaller in Greece (4%) than in the rest of the EU (9%), especially the northern European countries (Kikilias, 2007). As also noted in the latest European Commission report (European Commission, 2008), 13% of all children in the EU live in lone-parent households, one out of three of which is at risk for poverty.

Chart 3

Poverty rates of households with children by work intensity: Greece and EU-15, 2006

(Poor households with children as a percentage of total households of same type)

Source: Eurostat (ECHP, EU-SILC).

household members increases and the work intensity index[19] increases from 0 to 0.5, and subsequently to 1. Characteristically, in households with no working members aged 15-64 years, more than half the children live in poverty (Greece: 53%, compared with 61% for the EU-15). When the ratio of working-to-total members of a household with dependent children has a positive value of up to 0.5, the poverty rate drops negligibly for Greece (52%), but substantially for the EU (EU-15: 40%, EU-25: 42%). These rates drop further (to 25% for Greece and 18% for EU-15) when the working-to-total members of a household with dependent children take a value of 0.5 to 1. It should be noted that, as shown by the intertemporal data analysis, poverty increases substantially in Greece after 2002 in households with dependent children and a relatively lower work intensity. In other words, there is a definite negative correlation between a household's work intensity and its child poverty rate. In fact, the

work intensity of household members in Greece is becoming an increasingly decisive factor in averting child poverty.[20]

4. The characteristics of child poverty in Greece

Until recently, child poverty had not been a problem of serious dimensions in Greece and was

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19 Work intensity is defined as the ratio of working members in a household to its total working-age members (aged 15-64 years). Regardless of age, students do not count as household members.
20 As pointed out in the latest European Commission report on child poverty (European Commission, 2008), Greece belongs to a group of EU countries (together with Spain, Italy, Portugal, Lithuania, Latvia and Poland) characterised by comparatively higher child poverty rates, but where only a small percentage of poor children lives in jobless households and, on the contrary, the poverty rates are very high among working households. The determinants of poverty in working households in these countries are: low work intensity (e.g. the small percentage of households with two or more working members) in conjunction with low worker incomes (e.g. high poverty rates for households with two working members).

therefore not a major issue for social policy. This perhaps also explains the limited interest of researchers in the question. Only a few studies have focused specifically on child poverty, while others have examined the characteristics of the poor and the determinants of poverty for the total population and simply linked them with the presence or the number of children in the household without any further investigation. This section presents the characteristics of child poverty in Greece and identifies the groups at high risk, using microdata from the last HBS 2004/05. As indicated earlier, this source of data was chosen because it enables us to take both the consumption expenditure and the income of households into account, and to make further distinctions between monetary and imputed items.[21]

4.1 The dimensions of child poverty: alternative estimates

Table 2 presents the dimensions of child poverty in Greece for alternative age groups, using four different variables/distributions: (i) the distribution of total expenditure (including imputed expenditure, such as imputed rent, own consumption, etc.), (ii) the distribution of monetary expenditure (without imputed items); (iii) the distribution of households' total disposable monetary income (including imputed items); and (iv) the distribution of households' total disposable monetary income (without imputed items). As shown, in 2004, 19.8% or 18.3% of Greece's population was living below the poverty line (60% of the median) on the basis of the distribution of disposable monetary income or monetary expenditure, respectively. In other words, over two million people in Greece were living in a state of poverty. These rates fall by 2.3 to 3.5 per-

centage points or 300,000-400,000 people, when the imputed items are included in the respective income and consumption expenditure definitions.[22]

As for the dimensions of child poverty, based on the distributions of total and monetary income, 20%-21% of children up to age 16 live below the poverty line.[23] These child poverty rates, which are higher than the respective rates for the total population, translate, in absolute numbers, into some 365,000-390,000 children living in a state of poverty. It is also worth noting that the imputed components of income and consumption considerably reduce poverty in the total population (see "total population" figures in Table 2), but bring about a small reduction in child poverty, only on the basis of the distribution of income (for instance, child poverty among children up to age 16 falls from 21.0% on the basis of monetary income to 19.9% on the basis of total income). This can be attributed mainly to the relatively lower contribution of imputed income (such as imputed rent owing to owner-occupation) to the income and expenditure of younger couples with

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21 Most empirical studies use consumption expenditure data, when available, rather than income data, as the former are considered to provide a closer assessment of households' "permanent" or long-term income, owing to the existence of a consumption smoothing mechanism (Zeldes, 1989, Atkinson, 1991, Sen, 1992, Chaudhuri and Ravallion, 1994, Triest, 1998, Meyer and Sullivan, 2003). In addition, the NSSG considers the HBS consumption expenditure data to be more reliable than income data.

22 The poverty rate for the total population based on the disposable monetary income distribution of the HBS 2004/05 (19.8%) is practically the same as the corresponding rate (19.6%, or, rounded upward, 20%) obtained based on the EU-SILC 2005 (2004 incomes). See NSSG Press Release, 18.1.2007 and Bank of Greece, *Annual Report* 2006, Box IV.2, pp. 140-45.

23 Using the EU-SILC data for 2003, Bouzas (2006) estimates that 23 out of 100 children aged up to 18 live in a state of poverty and found the child poverty rate to be on an upward trend, rising from 19% in 1995 to 21% in 2000 and 23.5% in 2003.

T a b l e 2

Child poverty in Greece on the basis of alternative income and expenditure distributions

(Children living in poor households as a percentage of all children in the same age group)

Age groups	Expenditure distribution		Income distribution	
	Total	Excluding imputed items	Total	Excluding imputed items
0-6 years	12.5	11.1	20.1	20.3
0-14 years	12.6	12.0	19.2	20.8
0-16 years	11.9	11.2	19.9	21.0
0-18 years	13.2	12.4	20.4	21.9
Total population	16.0	18.3	16.3	19.8

Source: Calculations based on data from the Household Budget Survey 2004/05, NSSG.

children, compared with the rest of the population. Furthermore, a large part of imputed income is increasingly provided to high-ranking staff who are usually not at the lower end of the income distribution.[24]

What is perhaps most worthy of note from the figures of Table 2 is that the child poverty rates, based on the distribution of total consumption expenditure (11.9% for children up to age 16) or monetary consumption expenditure (11.2%) are much lower than the rates based on the income distributions.[25] The fact that this remains true for children across all ages validates our use of alternative distributions for the purpose of analysing child poverty in Greece. A possible explanation why child poverty is considerably lower on the basis of the distribution of expenditure than on the basis of that of income, according to economic theory, is the presence of a smoothing mechanism for short-term fluctuations in income incorporated into the distribution of expenditure. In other words, while a household's income changes rather easily, its consumption expenditure tends to remain stable over a longer period of time or at least changes at a slower pace. Thus, during an economic downturn, households are often able to avoid poverty by maintaining their consumption expenditure at the previously higher levels, in relation to their declining income. It is, therefore, reasonable to assume that, with the easier

[24] This may also explain why child poverty rates are slightly higher on the basis of total expenditure than on the basis of monetary expenditure. The inclusion of imputed expenditure in total household expenditure raises the poverty line for the total population and, subsequently, increases the number of poor young couples with children who usually do not have such imputed expenditure.

[25] A similar observation can be made about the results obtained for the relative gap or "depth" index of child poverty. Based on the distributions of total income and total expenditure, the average distance from the poverty line recorded for children up to age 16 living in poor households as a proportion of that poverty line was 22.9% and 17.2%, respectively. Considerable differences in child poverty rates, depending on whether income and expenditure distributions were used, were also reported, although to a lesser extent, by several studies for other countries (Cutler and Katz, 1991, 1992, Sabelhaus and Groen, 2000, Meyer and Sullivan, 2003, Johnson *et al.*, 2005, Munzi and Smeeding, 2006). Some studies have also recorded different poverty rates, depending on the distribution used (income, expenditure), for other population groups as well, such as the elderly, lone-parent households, etc. (Hagenaars *et al.*, 1994, Hurd and Rohwedder, 2006).

access to bank borrowing,[26] Greek households have in recent years been able to maintain a high consumption level and avoid situations of poverty to a far greater extent than they would have been able to solely on the basis of their income. This sort of tactic seems to have been adopted even more so by households with children, and is probably also attributable to the fact that the family institution remains very strong in Greece.

The family institution, it would appear, remains largely supportive of younger couples with children and often provides them with substantial monetary and non-monetary assistance (offering them a place to stay or paying for such as expenses as rent, nursery or private school fees, groceries, etc.).[27] Secondly, young couples with children are not usually willing to see their children's and families' living standards fall as a result of their own low income, and therefore look for ways (by borrowing or selling some asset or real estate, etc.) to keep their expenditure levels high, thereby sparing their children from deprivation. This interpretation is further corroborated by the rapid expansion of consumer credit and total household borrowing, which, according to Bank of Greece data, has increased at a rate of over 30% in the past five years. In addition, Bank of Greece sample surveys of household borrowing show that the loan burden of households belonging to the lower income bracket (up to €7,500) increased noticeably over the period 2002-05 (median outstanding debt-to-income ratio, 2005: 61.2%, 2002: 25.7%) and significantly exceeds the total household average (33.5%). During the same period, the average outstanding debt more than doubled for households belonging to the lowest income bracket and increased by a significant 52.9% in

the second lowest one (€7,501 to €15,000), while the increase for total households was 26.4%.[28] Nearly all of Greece's poor households with children seem to belong to the two lowest income brackets, as e.g. the poverty line in 2005 for a couple with two dependent children was €12,441. The above figures also imply that these poor households have considerable access to bank lending.[29]

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[26] This was due to increased competition within the banking system as a result of the market's deregulation, the ensuing and continuous decline in interest rates, but also the financial stability that prevailed once Greece joined the EU and adopted the single currency. Furthermore, the deregulation of the financial system over the past decade in Greece has most probably contributed to the drop in the household saving rate, as the removal of administrative constraints in the capital markets enhanced household borrowing and, thus, the propensity for household to consume. Indeed, according to the latest revision of the National Accounts data, household saving (as a percentage of household disposable income) was only slightly positive over the period 2000-06.

[27] It is fair to assume that benefits of this type are not adequately recorded in the HBS. According to Hondroyiannis (2002), the fact that population ageing, contrary to the predictions of standard life cycle theory, has a positive impact on private saving in Greece, can be attributed to the strength of the family institution. As the author observes, the elderly consider it their duty, not only to financially support their children even after the latter have come of age, but also to leave them some form of inheritance.

[28] See Bank of Greece Press Release, 24 March 2006, entitled "Borrowing and financial pressure on households: a household survey". In 2005, the Bank of Greece repeated the household sample survey it had first conducted in 2002 in order to investigate the degree of Greek household indebtedness, especially the extent of their borrowing in relation to their income and wealth, as well as the other important traits of their borrowing behaviour. The same survey was repeated in the last quarter of 2007 and its results were released on 19 May 2008.

[29] The similarity of survey sample findings for other countries are attributed to factors related to household borrowing, asset liquidation and increased consumption in younger age groups associated with positive expectations concerning higher future income levels. Furthermore, some of these studies, by comparing income figures for poor households with relevant data from administrative sources, conclude that some of these households' incomes are underestimated (social benefits, etc.). According to certain studies, this underestimation accounts for part of the higher child poverty rates based on the distribution of income, compared with the distribution of consumption expenditure (Cutler and Katz, 1991, 1992, Sabelhaus and Groen, 2000, Meyer and Sullivan, 2003). A similar reason could possibly also explain part of the observed difference for Greece.

4.2 Groups at high risk for child poverty

As shown by the previous analysis, the dimensions of child poverty do not vary significantly in relation to the definition of child age and whether or not imputed items are included in the distributions used. However, a significant difference was recorded depending on whether the income or the consumption expenditure variable was used. The same distributions were then used to perform a comparative analysis of child poverty in combination with the characteristics of the household and its members. Such an analysis enables the researcher to identify which groups are at a high risk for child poverty and, by extension, to make a first estimate of its determinants.

For the purpose of this comparative analysis, Table 3 provides the relative risk values or child poverty concentrations for certain population groups, selected on the basis of the geographic, demographic, occupational and other characteristics of the households and their members. These index values were obtained by dividing the child poverty rate for each population group by the respective rate for total households with children aged up to 16. High index values, therefore, denote a comparatively high concentration and high risk of child poverty, while the index value for total households with children has a value of 1.00 (see "Total" figures given in the last line of Table 3).[30]

As shown by the figures, rural households[31] with children as well as multi-member households are at a particularly high risk for child poverty, when it comes to the households' place of residence and composition. Child poverty takes on particularly dramatic proportions in single-parent house-

holds, where the concentration of child poverty more than quadruples relative to total households with children, on the basis of both expenditure distributions. From the analysis of the demographic and other characteristics of the head of the household, the households whose head is an economic migrant[32] or aged up to 34[33] are groups at high risk for child poverty. A strong negative correlation was also found to exist between the risk of child poverty and the educational level of the head of the household – the lower the educational level, the higher the values of the relative poverty risk index.[34] Similar results are obtained when the child poverty risk is correlated with the educational level not only of the head of the household, but also of the other parent in the household. In this case *as well*, the relative child poverty risk falls dramatically as the educational level of one of the two parents increases. As regards the occupational status of

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30 By multiplying the relative concentration indices of child poverty by the poverty rates of Table 2 for children aged 0-16, one obtains child poverty rates which, depending on the distribution used, correspond to one of the groups of Table 3.

31 A breakdown of the child poverty rates by geographical region shows a high concentration of poor children in Eastern Macedonia and Thrace, Thessaly, Western Greece, the Peloponnese and the Northern Aegean, which basically all correspond to Greece's more rural regions.

32 Mainly from Eastern or South-Eastern Europe (Albania, Bulgaria, Romania, Poland, the former Soviet Union, etc.), but also from Asia or Africa. With regard to the dimensions of poverty in migrant households, the study of Zografakis and Mitrakos (2006) came up with similar results, i.e. double the "normal" poverty rates.

33 A more detailed analysis shows that child poverty rates decline in households headed by someone in the 35-44 years age group and again increase slightly for households headed by someone in the older age groups. In other words, there seems to be an inverse bell-shaped relationship ("U") between the age of the household head and the child poverty rate.

34 E.g., households whose head has not finished primary school face child poverty rates in the order of 33%-38%, depending on which distribution is used. The rates are even higher for households whose head has not received any schooling.

Table 3

Groups facing high risk of child poverty: indicators of relative risk or child poverty concentration

(Relative risk for total population: 1.00)

Classification criteria	Expenditure distribution		Income distribution	
	Total	Excluding imputed items	Total	Excluding imputed items
Type of household				
Rural	1.99	2.41	1.67	1.83
Households with 5 members	1.16	1.05	1.37	1.24
Households with 6 members or more	2.30	2.42	1.65	1.60
Single-parent households	4.53	4.20	2.96	2.23
Demographic and other characteristics of the household head				
Economic migrant	3.31	2.35	2.20	1.37
Female	0.96	1.15	1.32	1.54
Aged less than 25 years	4.18	4.45	2.50	2.36
Aged 25-34	1.53	1.51	1.43	1.47
No formal education	5.65	6.01	3.79	3.09
Primary schooling not completed	3.17	2.69	1.68	2.27
Primary schooling completed	2.00	2.17	1.69	1.82
Lower secondary education completed	1.98	1.76	1.76	1.57
Occupational characteristics of the household head				
Uninsured	4.51	4.31	2.67	3.13
Insured with IKA	1.48	1.31	1.26	1.09
Insured with OGA (farmers' fund)	2.22	2.86	2.03	2.26
Unemployed	1.63	1.35	1.69	1.75
Inactive	1.98	3.20	2.78	3.04
Unable to work	4.32	4.60	4.38	4.17
Part-time employment	2.25	2.21	1.97	1.73
Fixed-term employment contract or occasional work	2.02	1.91	2.03	1.86
Farmer, livestock breeder, fisherman	1.88	2.47	2.22	2.55
Technician and related occupations	1.88	1.81	1.61	1.33
Unskilled worker	2.52	1.78	2.01	1.58
Employed in primary sector	2.09	2.68	2.19	2.49
Employed in construction	2.16	1.94	1.94	1.58
Self-employed	1.23	1.49	1.66	1.97
Total	1.00	1.00	1.00	1.00

Source: Calculations based on data from the Household Budget Survey 2004/05, NSSG.

the household head, the relative child poverty risk is particularly high among those who are either outside the workforce or unemployed. When the head of the household is employed, this risk increases drastically among those employed in the primary sector (or covered by the Farmers' Insurance Fund-OGA) and in manufacturing, among unskilled and manual workers, as well as among those in occasional employment, working under a fixed-term contract or under contract employment, the uninsured or the part-time employed.[35]

5. The determinants of child poverty

Several traits of the groups at high risk for child poverty presented in the descriptive analysis above are obviously strongly correlated. For instance, many couples with children living in rural areas are usually employed in the primary sector, insured by OGA and have a relatively low educational level. Therefore, it is important, in terms of the structure of child poverty, to determine which factors significantly affect the risk of a child falling below the poverty line, *ceteris paribus*. In other words, what are the real factors that drive households with children into a state of relative poverty? This question can be answered using a multivariate logit econometric model. This model is based on the assumption that the risk of an individual falling below the poverty line is essentially random and depends on the concurrent impact of a number of socio-economic and demographic factors. The results of the relevant estimates are presented in Table 4.

The reference group used to estimate our model are households consisting of a couple with two

children up to age 18, living in a semi-urban area, and whose head is aged between 45-54 years, a private sector white-collar worker and has finished lower secondary school. The estimates presented in Table 4 are the odds ratios that measure the marginal impact of the change of one of the reference group's characteristics, *ceteris paribus*. Specifically, the numerator of the odds ratio is obtained by calculating the quotient of the odds of a child with specific characteristics (e.g. all of the reference group characteristics except one) falling below the poverty line divided by the odds of the child not being poor. The denominator is the respective odds quotient for the reference group. An odds ratio greater (smaller) than one suggests that, *ceteris paribus*, a change in the specific characteristic of the reference group leads to an increase (reduction) in the child poverty odds.

Generally speaking, the results of Table 4 do not differ significantly from those of Table 3. From the first part of the table, it arises that, all other factors remaining the same, the child poverty odds[36] are negatively correlated with the degree of urbanity of the household's place of residence. On the basis of the consumption expenditure distribution, the odds of a child aged up to 16 and

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35 The findings of the descriptive analysis of Bouzas (2006), based on disposable income data from the EU-SILC for 2003 are similar. According to the author, the determinants of child poverty are the household head's either very young or advanced age, status as unemployed, retired or economically inactive, whereas the holding of a job by the household head is the best way to avoid child poverty. However, the author's finding that the child poverty rate is positively correlated with the children's age, i.e. that children as they grow older have greater needs that are not matched by a commensurate increase in family income, was not corroborated by the present study (see figures of Table 2).

36 Indeed, as also shown by the descriptive analysis, the lower the degree of urbanisation of the household's place of residence, the greater the increase in the child poverty rate, which, in rural areas, rises as high as 33.2% and 23.7%, depending on whether the expenditure or the income distribution is used.

T a b l e 4

Logit estimates of child poverty risk

(Probability of a child aged 0-15 in a given household group being poor as a ratio of the respective probability for the reference group)

Factor	Expenditure distribution		Income distribution	
	Total	Excluding imputed items	Total	Excluding imputed items
Location and type of residence				
Urban areas	0.87	0.95	0.69**	0.83*
Rural areas	2.32**	2.47**	1.43**	1.47**
Rented housing	2.04**	0.63*	3.96**	1.33**
Demographic characteristics				
Head of household is an economic migrant	4.33**	4.34**	1.94**	1.29*
Number of children aged 0-16	1.48**	1.79**	1.22**	1.27**
Couple with one child aged 0-18	0.86	1.20	0.74*	0.62**
Couple with three or more children aged 0-18	1.25*	0.88	1.86**	1.18*
Single-parent households	0.81	1.68	2.36**	1.58*
Female head of household	0.50**	0.53*	0.30**	0.70*
Head of household aged up to 34	0.98	1.18*	1.16*	1.77**
Head of household aged 35-44	0.59**	0.65**	1.15*	1.36**
Head of household aged 55 or over	0.48**	0.45**	0.33**	0.40**
Work type and intensity				
Head of household is employed	0.28**	0.21**	0.07**	0.21**
Wife is employed	0.43**	0.54**	0.18**	0.18**
Number of other members with employment	0.71**	0.78**	0.42**	0.37**
Head of household works part-time	0.97	0.98	2.03**	1.35*
Head of household works under fixed-term or contract employment or occasionally	1.24*	1.20	2.27**	2.21**
Occupational characteristics				
None of the members is insured	3.21**	2.96**	1.56*	2.66**
Non-agricultural employment	0.17**	0.28**	1.29	0.91
Non-agricultural self-employment	1.51*	1.71**	4.71**	4.27**
Agricultural employment	2.29**	2.97**	7.75**	5.96**
Blue-collar worker in the private sector	1.87**	2.34**	2.64**	1.53**
Blue-collar worker in the public sector	1.66*	1.76*	0.81	0.53**
White-collar worker in the public sector	0.80	0.58*	0.37**	0.27**
Unemployed	0.83	0.70	0.56	1.32
Educational level				
Tertiary education	0.17**	0.25**	0.20**	0.19**
Secondary education	0.54**	0.65**	0.58**	0.69**
Primary education	1.14	1.48**	1.01	1.56**
Primary education not completed	4.05**	3.74**	2.78**	7.71**
Constant	0.18**	0.13**	1.38	0.74
Statistics				
-2 Log likelihood	3,975.3	3,926.6	4,801.6	5,026.8
Nagelkerke R²	0.358	0.329	0.444	0.430
Percentage of successful classification	88.1	89.1	85.0	84.0

Reference group: Residence: *semi-urban areas; demographic characteristics: couple with two children aged 0-18; age group: 45-54 years; occupational characteristics: white-collar worker in the private sector; educational level: secondary education completed.*
* significance at 5% level.
** significance at 1% level.
Source: Calculations based on data from the Household Budget Survey 2004/05 (NSSG).

living in a rural area falling below the poverty line are more than double the odds for the reference group (semi-urban areas). Very strong child poverty odds were also found for households living in rented housing, as opposed to those in owner-occupation, particularly when the analysis takes into account the imputed elements of income and expenditure, which in this case are mainly imputed rent.

In relation to household composition and to the demographic characteristics of household members, the following arise from the second part of the table: The households of economic migrants face heightened odds of child poverty, compared with non-migrant households. What is more, these odds are much higher on the basis of the distribution of consumption expenditure than on the basis of the distribution of income, as migrant households are more inclined to save rather than consume, driven by the need to help their relatives back home and accumulate some wealth.[37] A strong positive correlation was also recorded between child poverty odds and the number of children in the household.[38] For couples with children, based on most indications and the distribution of income, the child poverty odds increase in relation to the number of children.[39] The case of single-parent households is similar. They face increased odds of child poverty on the basis of the distribution of income. This finding, however, is not corroborated by the distribution of consumption expenditure: in fact, the opposite seems to happen in Greece of what is observed in most other countries, where children living with only one parent nearly always face increased odds of child poverty.[40] This more favourable situation in Greece may be attributable to the relatively small number of single-parent households and to the

decisive support provided by the extended family (grandparents, other relatives), mainly in terms of consumption expenditure (Kikilias *et al.*, 2007, Mitrakos and Tsakloglou, 2006). With regard to the household's demographic characteristics, the present analysis also confirms the negative correlation between child poverty (mainly on the basis of the income distribution) and the age of the household head. The odds of child poverty are smaller when the head of the household is female or belongs to an older age group.

In the two following sections of Table 4, the odds of child poverty are estimated on the basis of the intensity and the characteristics of the household members' occupational status. As shown by the figures, the key to averting child poverty lies in the increased degree of household member employ-

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37 See Bank of Greece, *Annual Report* 2006, Box III.3, pp. 115-18.
38 Similarly, a strong positive correlation was found to exist between the odds of child poverty and the size of the household, which was used as an alternative interpreting variable to the number of children aged up to 16. On the basis of the total income distribution, child poverty increases from 10.1% for two-member households to 27.3% for five-member ones and 32.7% for households numbering 6 or more.
39 A similar analysis by Mitrakos and Tsakloglou (2003) found that the poverty risk for couples with children increases considerably for those with three children or more aged up to 18. The same conclusion was drawn by Fotakis (2006) for 22 countries of the EU-25. However, an earlier study by Mitrakos *et al.* (2001) showed this finding not to be robust, as it varied depending on the poverty analysis variable chosen (income, expenditure, "permanent" income). Zografakis and Mitrakos (2006) conclude that the existence of children in a household substantially increases the poverty risk facing it. This conclusion holds both for migrant and non-migrant households, as well as for the total population.
40 As shown by the results of the descriptive analysis, presented in Table 3, child poverty takes on dramatic proportions in lone-parent households, where the relative risk indicators of child poverty more than quadruple, in comparison with total households with children, on the basis of both expenditure distributions. However, the results of the multivariate analysis show that the specific increase in these indicators cannot be attributed with certainty to single-parenthood and may be related to other characteristics, such as the household head's gender (usually female), level of education or young age.

ment. More specifically, the odds of child poverty fall significantly when the head of the household is employed, but also when the spouse or other household members enter the labour market. In other words, the odds of child poverty drop significantly as the number of working household members increases. With regard to the type of labour contract held by the head of the household, it is found that occasional employment, fixed-term employment, contract employment and also, but to a lesser extent, part-time employment may be associated with higher odds of child poverty. This finding is found to be valid mainly on the basis of the distribution of income, and was not always corroborated by the results using the distribution of expenditure. Once again, this can probably be attributed to the decisive supportiveness of the Greek family and the extended family network, which help younger couples with their consumer expenditure. This is also probably why, in contrast with the results of the descriptive analysis of Table 3, no statistically significant correlation was found to exist between the odds of child poverty and the unemployed status of the head of household.[41] As regards the occupational characteristics of the head of household, households were found to be at a higher risk for child poverty (in comparison with the reference group households, which were defined as headed by a private sector white-collar worker), when they were headed by manual workers (blue-collar workers, farmers) or someone self-employed. The child poverty risk was, on the other hand, substantially lower among households headed by employers and civil servants. The absence of work specialisation appears to go hand in hand with a high risk of child poverty, as does uninsured work.[42]

As shown by the last part of Table 4, the risk of child poverty falls significantly as the educational level of the household head improves. As expected, households with children, headed by a graduate with tertiary level or doctoral studies, are far less likely to experience child poverty than the corresponding households headed by a lower secondary school graduate (reference group). The same can be said, though to a lesser extent, for households headed by an upper secondary school graduate. In contrast, households with children headed by someone who has not completed primary schooling face a very high risk of finding themselves below the poverty line, even when the effect of various other factors is isolated.

6. Summary, conclusions and policy proposals

The objectives of this study were (i) to record the real dimensions and dynamics of child poverty in recent years in the EU, and (ii) to investigate the characteristics of children living in a state of poverty and identify the factors underlying the

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41 Indeed, the descriptive analysis and the figures of Table 3 show child poverty to be directly linked with the household head's labour market status. Specifically, child poverty increases considerably if the head of household is unemployed, unable to work or belongs to the economically inactive. The relative risk index for child poverty is very high when the household head is unemployed (ranging from 1.35 to 1.75, depending on the distribution), out of the workforce (1.98-3.20) or unable to work (4.17-4.60).

42 Instead of the occupational characteristics presented in this paragraph, our study examined the type of insurance fund household members were members of, as an alternative explanatory variable. The results showed that, isolating the effect of all other factors, a higher risk of child poverty, compared with the reference households (households whose members are insured not in the same, but in more than one insurance fund) is recorded for households whose members are either uninsured or insured with OGA, the Social Insurance Fund (IKA) and probably also the Fund for Self-Employed Artisans and Craftsmen (TEBE). In contrast, especially on the basis of the distribution of consumption expenditure, this risk is smaller for those who are insured with other funds (banks, engineers, public utilities, etc.).

apparent increase in child poverty in Greece. To this end, we used both data released by Eurostat for the period 1996-2006 and primary microdata from the latest HBS (2004/05). This second source enabled us to use both the distribution of income and that of expenditure alternatively, as well as multiple criteria in order to identify the groups at high risk for child poverty on the basis of geographical, demographic, occupational and other socio-economic characteristics of the households and their members. Furthermore, by estimating econometric models (logit models), we were able to determine the factors that affect the odds of a child falling below the poverty line, as well as the contribution of each factor to the shaping of child poverty. The findings of this analysis should prove useful for the formulation of social policy measures aimed at tackling the problem.

6.1 Conclusions

In spite of the efforts by major international organisations (UNICEF, the World Bank, the United Nations, the European Commission, etc.) to broaden the concept and content of child poverty, the economic dimension of the term is the one most widely referred to. Simple alternative statistical indicators of poverty are therefore usually estimated, based on economic parameters. Such indicators include the percentage of children whose financial resources (as determined by the household they belong to) are below a specific, often arbitrarily set, level, the gap or depth of poverty, etc. By analysing the statistical poverty indicators published by Eurostat and based on the distribution of households' disposable monetary income derived from the EU-SILC survey, our study was able to ascertain that the dimensions of child poverty in Greece are

probably widening, as the rates of child poverty have shifted upward since 2002. Furthermore, contrary to what has happened in most other EU countries, the percentage of children upto age 15 living below the poverty line increased by three percentage points to 22% in 2006, from 19% in 2005. In absolute numbers, this percentage translates into some 380,000 children aged up to 15 or 450,000 children up to age 17 living below the line of relative poverty in Greece. This rate is currently among the highest in the EU-15, surpassed only by Italy, Spain and the United Kingdom.

Two other important conclusions can be drawn from the analysis of Eurostat data. First, there appears to be a clear negative relationship in most EU countries between household work intensity and the child poverty rate, a relationship which has strengthened in Greece since 2002. Second, the dimensions of child poverty are affected by the type and the composition of the household. For instance, in nearly all of the EU countries, children from single-parent households are at a much higher poverty risk than the total population, while in the case of two-parent households, the poverty risk increases substantially in relation to the number of children. In fact, quite characteristically, the child poverty rates nearly double when the number of children increases from two to three or more. Clearly, these are the groups at greater risk for child poverty which should be targeted by social policy measures.

It is now clear that any in-depth analysis of child poverty must be based on detailed data that allow the combination of multiple criteria, at the level of the household and its members, for the purpose

of identifying specific underlying factors. The microdata from the latest HBS, used in the present study to investigate child poverty in Greece, had the advantage of enabling both the identification of poverty-inducing factors and the use of alternative variables and definitions. In fact, our investigation found that the percentage of children living below the relative poverty line differs considerably depending on whether the distribution of total or monetary consumption expenditure is used, rather than the one of total or monetary income. The fact that the dimensions of child poverty are considerably smaller based on the distribution of consumption expenditure (rather than income) can perhaps be explained by the households' effort to avert a drop in their children's standard of living during economic downturns or periods of low income. This effort is very often supported by the *extended* family, in line with the widespread social belief that "a better life must be secured for the kids", and has been enhanced by the greater sensitivity in recent years of policy makers to matters concerning the younger generations (social security, abolition of inheritance taxes, etc.).[43]

It is therefore reasonable to assume that, in recent years, bank borrowing has enabled Greek households to maintain a higher level of consumption and to avert a state of poverty far more than they would have been able to solely on the basis of their income. This type of tactic seems to have been adopted even more so by households with children, as young parents are not usually willing to see their children's and family's standard of living decline as a result of their low income. Various means are resorted to (borrowing, asset liquidation, etc.) to keep their expenditure level high and, at the same time,

avert situations of poverty for their children. Besides, as also suggested by economic theory, the distribution of expenditure incorporates a mechanism that smoothes out short-term changes in income. This mechanism has obviously been facilitated in recent years by factors associated with the easier access of households to borrowing and the gradual drop in bank rates mainly as a result of increased competition after financial liberalisation. The economic stability that ensued from Greece's EU entry and its adoption of the single currency has evidently not only facilitated the drop in interest rates, but has probably also had a positive effect on the expectations of households with regard to their future income, thereby encouraging recourse to bank loans for the purpose of maintaining a higher standard of living. This explanation is also supported by the exceptionally strong rate of consumer credit expansion over the last five-year period.

The descriptive analysis of the characteristics of households with children identified the following groups as being at high risk for child poverty: rural area households, multi-member households with three or more children, households headed by a young person (aged up to 34) or an economic migrant, single-parent households, as well as households headed by someone unemployed, economically inactive or unable to work. For

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43 As also pointed out in the European Commission's latest report (European Commission, 2008), Greece, Spain, Lithuania, Portugal and Poland are characterised by a family structure and an intergenerational solidarity that continue to play an important role in reducing child poverty. The coexistence of different generations in the same household (e.g. grandchildren with grandparents) and the substantial transfers in money or in kind between the members of the same family can partly offset the lack of support from the official social welfare system).

households where the head was in work, a higher risk of child poverty was found for those whose members were all uninsured or insured with OGA, or whose head works either occasionally or under fixed-term or contract employment, or whose occupation is low skilled (agriculture, construction, etc.). It should also be noted that the rate of child poverty fell significantly as the educational level of the household members improved and the number of its working members increased.

However, after isolating the effect of other factors by means of a multivariate analysis, the risk of a child falling below the poverty line was mainly determined by: a poor level of education, residence in a rural area or in rented housing, and a large number of children. The risk of child poverty increased substantially for the households of economic migrants, the uninsured or those insured with OGA and those working in manual occupations (workers, farmers). In other words, the lack of occupational specialisation seems to be linked with a high risk of child poverty. Similar observations were made for single-parent households, which in Greece are at an increased risk for child poverty on the basis of income distribution, even though this finding was not verified by the results based on the distribution of consumption expenditure. This last fact can perhaps be attributed to the decisive supportiveness of the extended family (grandparents and other relatives), primarily in helping them meet their consumption expenditure. The strength of the family institution in Greece seems to have a similar influence on the overall support offered to younger couples with children, and to those under occasional, fixed-term, contract, or part-time employment, not to mention the unemployed. Our multivariate analy-

sis showed these last categories to be at a high risk of child poverty mainly on the basis of the distribution of income, a finding which was usually not verified in a statistically significant manner when the distribution of consumption expenditure (both monetary and total) was used.

Finally, it is worth mentioning that, as indicated by the findings of the study, the risk of child poverty falls markedly, as the number of household members in work increases. The holding of a job by the head of the household considerably reduces the risk of child poverty, while the same is also true for the labour market entry of the spouse or other household members. In other words, an increase in the intensity of employment of the households' members was conducive to lower child poverty. Open-ended or permanent employment relationships also reduce the risk of child poverty.

6.2 Further observations and policy proposals

The dimensions of child poverty are directly related to the size of the welfare state and the efficiency of social expenditure. In this respect, it is worth noting that fiscal measures and social expenditure have had an exceptionally limited impact on child poverty in Greece, compared with most other EU countries and with the EU average. Despite the considerable increase in social expenditure as a percentage of GDP in Greece over the past decade (from 20.5% in 1996 to 24.2% in 2005, compared with 27.8% for the EU-15 and 27.2% for the EU-27), child poverty has not only persisted, but has most probably widened in recent years. Specifically, total social expenditure in Greece reduced the dimensions of poverty among children aged up to 15 (EU-SILC 2006

data) by merely 4 percentage points (from 26% to 22%), compared with a reduction of 16 percentage points (from 35% to 19%) for all EU-15 countries combined. Furthermore, on the basis of the European Commission's latest report (European Commission, 2008), social expenditure in the EU (excluding pensions) reduced the poverty risk for children aged 0-17 years by 44% in 2005. In Greece, this percentage did not exceed 13%, the lowest in the entire EU.[44]

Some remarks must be made about the limited effectiveness that the benefits provided under Greece's fragmented social welfare state have in reducing child poverty. First of all, the redistributive role of social benefits is usually more important in countries that spend a larger share of their GDP on such benefits. In the case of Greece, the size of the welfare state is difficult to establish. Based on the last revision of Greece's GDP figures, social expenditure in 2005 amounted to 24.2% of GDP, i.e. about three percentage points below the EU-15 average. However, there are certain other important factors, apart from the level of available funds, that affect the final result, such as the manner in which social benefits are distributed between the various types of transfers, as well as the "targeting" efficiency of the respective benefits.

Specifically, as was to be expected, pensions, which are the most important type of social transfer in the EU, make a limited contribution to reducing child poverty. Indeed, of the 16 percentage points by which child poverty is reduced in the EU thanks to total social benefits, only 2 percentage points can be attributed to the allocation of pensions, while the remaining 14 percentage points are attributed to non-pension social bene-

fits, such as unemployment benefits, disability allowances, welfare benefits, sickness allowances, housing benefits, family benefits, etc. In the case of Greece, pension expenditure plays an important role, accounting for 2 of the total 4 percentage points by which child poverty is reduced as a result of social expenditure. As already stressed, this can be explained both by the structure of the Greek family (frequent coexistence of grandchildren and grandparents in the same household) and the prevailing social beliefs, which support transfers in money and in kind between the members of the extended family environment.

Only 12.7% of Greece's non-pension social expenditure (or 6.3% of its *total* social expenditure and 1.5% of GDP) is targeted at family and children, and even the "child targeting" of this social expenditure is problematic: characteristically, the wealthiest 10% of the population receives 12.9% of family benefits (EU-SILC data). The fact that an important share of the financial assistance to families with children is not targeted at the poorest ones, given that this assistance (third child benefits, additional tax-exemption for the third child, benefits for families with many children, etc.) is granted regardless of the family income,[45] reduces its effectiveness in reducing

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44 With regard to the effectiveness of social policy in reducing child poverty in the OECD Member States, the UNICEF report (2005) shows that in Greece, Ireland, Italy, Portugal and Spain, not only is the percentage of government expenditure allocated to non-pension social benefits generally small, but these benefits also play a much smaller role in protecting low-income families. In these countries, which present high child poverty rates, government funds intended for the lower income groups are mainly targeted at people aged over 50, and less at children. Recent studies by Matsaganis *et al.* (2003, 2006a, 2006b) also conclude that the role of the State in family policy matters and the public support programmes to poor families with children have had very disappointing results in Southern European countries. Similar findings are reported by Papatheodorou (2005).

child poverty. Thus, in practice, not only is a minimum standard of living not secured for poor households with children, but certain categories of beneficiaries are also probably discriminated against, owing to the highly fragmented and bureaucratic nature of the benefits system. Consequently, a better targeting of social benefits in favour of families with children and in comparatively greater financial need would obviously increase the efficiency of these benefits in terms of their contribution to reducing child poverty and help contain the widening of this phenomenon.

The findings of the present study lead to certain other obvious conclusions regarding the formulation of a more effective policy to combat child poverty in Greece. For instance, given that the low educational level of the head of household was shown to be closely linked to child poverty and consequently to be a decisive factor in its transmission from generation to generation, the conduct of a policy aimed at improving the educational level mainly of the poorer segments of population would almost certainly help contain child poverty in the long run. The various sub-targets of such a policy could include: reducing the number of school drop-outs, increasing the duration of compulsory education, improving the quality of services rendered (supportive teaching, reduction of lost teaching hours, etc.), encouraging the poorer segments of the population and their children to participate in non-compulsory levels of education, and by reducing the recourse to shadow education as a means of improving the chances of access to tertiary education. The findings of our study also indicate that a containment of non-insured work and a faster integration of migrants into Greece's society and economy would, besides other benefits, most likely reduce the dimensions of child poverty. The

effect of a policy aimed at increasing the employment and employability of household members and facilitating their labour market entry would be similar. As shown by our analysis, there is a strong negative correlation between the risk of child poverty and the *non-employment* of the head of household, spouse and other household members. Consequently, the formulation of any policy aimed at enhancing the access of young couples with children to the labour market and employment would almost certainly make a decisive contribution to averting child poverty. Examples of such policy measures include: improving the childcare infrastructure for pre-school and school-aged children (nursery schools, all-day schools, etc.), adjusting young people's knowledge and skills to market needs (through vocational training, by improving the flexibility of formal education to fields in increased demand, etc.), the better matching of labour market supply and demand (through information channels, the restructuring of the Greek Manpower Employment Organisation–OAED, etc.).

From the debate that has erupted in recent years regarding the definition of child poverty, it transpires that the comprehension and resolution of this particularly complex and multi-dimensional issue calls for a combination of multiple dimensions and corresponding parameters. The economic dimension is definitely an important one, with parameters that include the household's

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45 For instance, the €10,000 increase in recent years (from €10,000 to €20,000) in the tax-free income for families with a third child has indubitably benefited families that have an annual taxable income in excess of €20,000. Poor households with three children, however, do not fall into this category as their total income is no more than €14,184 (i.e. the respective poverty line according to EU-SILC 2006 data).

income, other disposable resources and financial assistance, its consumption expenditure and/or its wealth. However, several other important dimensions must be taken into consideration both when analysing child poverty and, primarily, when deciding on the most appropriate policy for its eradication. These include the household's standard of living and quality of life, the access of its members to public social services (health, education, recreation, etc.), their health and sense of security, the presence of both parents, as well as family and civic relationships. In any case, the defining and monitoring of child poverty in Greece must be addressed in a comprehensive way, so that targets can be set, progress monitored and the chosen policy evaluated. In its 2005 report, UNICEF urges governments to focus their research and policy formulation on the relation between the broader determinants of children's economic well-being: i.e. the family, the market and the state. In a similar vein, the European Commission's latest report (European Commission, 2008) notes that the national quantitative goals set for the reduction of child poverty must be based on an investigation of the phenomenon and an identification of the underlying causes in each country. The progress made in the respective countries must be assessed in relation to the targets set, and measured not only in terms of the economic dimension but also of the other dimensions of child poverty and well-being such as the ability/inability to acquire certain goods, housing, health, the exposure to risks and risky behaviours, civic participation and the family environment, education and the local environment.

In conclusion, reducing the risk of child poverty must now be brought to the forefront of social policy in Greece, and addressed in a manner that will take into account the problem's multi-dimensionality. The deprivations faced by children in a state of poverty are not only a matter of insufficient income. A multifaceted course of action is therefore required not only to increase monetary social expenditure, but also to provide services in the fields of education, health, social security, culture, etc. and to facilitate the access of such households to social services and, first and foremost, to better-quality jobs. In other words, what is needed is a coordinated course of action that will support the family work-income and non work-income, social expenditure, social investment and non-income social benefits in kind, so as to produce the necessary synergies.

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