The Greek crisis was the deepest and longest ever recorded in an OECD country in the postwar period. Output declined by over a quarter and disposable income by more than 40%, while the unemployment rate exceeded 27%. The paper explores the effects of the crisis on the level and the structure of aggregate inequality and poverty using the Greek data set of the European Union Survey of Income and Living Conditions (EU-SILC) for the period 2007-2016. Due to intersecting Lorenz curves, the results regarding inter-temporal changes in inequality are not always clear. Most indices record an increase in the level of inequality during the period under examination and the effect is larger when the indices are relatively more sensitive to changes close to the bottom of the distribution. On the contrary, a few indices that are relatively sensitive to changes close to the top of the distribution register a marginal decline in inequality. Unlike claims often made in the public discourse, the elderly improved their relative position in the income distribution while there was substantial deterioration in the relative position of the enlarged group of the unemployed. The contribution of disparities between educational groups to aggregate inequality declined while that of disparities between socio-economic groups rose. When inequality decomposition by factor components is attempted, the results show that the progressivity of social transfers (both pension and non-pension) rose during the crisis, but this effect was counter-balanced by the adverse effects observed in other income components. All poverty indicators suggest that poverty increased considerably, especially when “anchored” poverty lines are used. Substantial changes are observed regarding the structure of poverty. Despite an increase in the population share of households headed by pensioners, their contribution to aggregate poverty declined considerably, with a corresponding increase in the contribution of households headed by unemployed persons. The changes are starker when distribution-sensitive poverty indices are utilized.