This study is focused on Regional Policy of European Union, mainly on EU regional policy evaluation with respect of its impact on convergence, in accordance with the reduction of regional income and unemployment rate disparities. The Aim of this study is to examine the convergence within the European Union at regional level. I focus on a measure of regional income disparities in per capita GDP in European Union. For this purpose I chose a comparative analysis of income regional disparities based on the "core-periphery" theory. The data used for this analysis covers fifty years of European Communities since the foundation of EC till present EU25.