Okuyama (2010) found that the long-run effects of the Kobe Earthquake, occurred in 1995, appear to be significant, lasting for several years in an increasing manner, based on the time-series analysis of regional economic data, such as GRP. It also suggested that a large part of the economic effects be resulted from structural changes of the Kobe economy caused by the damages of and reconstruction activities after the earthquake. In order to investigate the long-run effects further, this paper aims to analyze the extent and structure of the disaster effects, based on the input-output framework. The structural changes are measured based on time-series of Kobe regional input-output tables. Since 1995 Kobe regional input-output table was not compiled due to the earthquake occurrence, the 1995 table is estimated using the available regional data. Based on these tables, the region specific structural change of the Kobe economy is decomposed using structural decomposition technique and shift-share analysis.