This thesis investigates application of the gravity model of international trade on measuring a distance coefficient, which is known to be a proxy to globalization. This estimation is performed on a dataset containing information on EU 27 countries through the years 1996 to 2014. The presence of 10 post-communist countries enabled the author to perform the estimation on transformative economies, which had been isolated from their western trade partners for over 40 years. The division of the dataset into the Western and Eastern Blocs enabled measurement of convergence of the intra-blocs trade – the second goal of this thesis. This measurement was done through newly introduced intra-blocs trade variables that enabled measurements of both directions of trade. Through the application of this model on 10 sections, these measurements could be performed on single trade components. The analysis shows a substantial heterogeneity between single sections both in distance coefficient and inter-blocs trade. An increase in the level of globalization was observed in 9 out of 10 sections and convergence of some sections between the blocs was also found. Finally, globalization was found to progress with varying speed within single SITC sections during periods of economic crises.