

Abstract

The traditional gravity model has been applied many times to international trade flows, especially in order to analyze trade creation and trade diversion. However, there are two fundamental objections to the model: it cannot describe substitutions between flows and it lacks a cogent theoretical foundation. A newly developed model, the Extended Gravity Model (EGM), overcomes these objections. The model shares characteristics of the models of Bergstrand (1985), Andersen and Van Wincoop (2003), and Redding and Scott (2003). An empirical test on a world-wide sample of 19 thousand 2005 trade flows strongly rejects the gravity model in favour of the EGM. The empirical analysis also shows that the gravity model widely overestimates the influence of the determinants of international trade, which is due to strong substitution between trade flows, reducing the initial (gravity model) effects. Substitution determines both trade creation and trade diversion. The EGM encompasses several models originating in regional economics and can be applied usefully to a wide set of subjects.