## Productivity of passenger rail services and inter-modal competition of trunk passenger transport services (Abstract)

This study considers the transport competition in Japan to have some implications for antitrust policies. We have preceded the researches on the three topics:F irst, to reveal the effects of the difference of privatization of national railway businesses between Japan and EU, we theoretically analyzed how intra- and inter-modal competition affects the fare for rail services (Ch.1). Second, we evaluated the efficiency of the Japan Railway Companies (JRs) after their privatization from the viewpoint of the economies of scale and scope, and the efficiency of the local train companies of the third-sector separated from JRs (Ch.2). Third, we estimated the business passenger's demand function from Kagoshima to Fukuoka, using a person-trip data, to examine the state of the competition among the rail, the air and the coach (Ch.3).

The outline of obtained findings is as follows. (1) Our price competition model—shows that eliminating double marginalization and introducing open access or vertical separation with such access charge regulation as marginal cost pricing, is effective to achieve lower fare for rail services. (2) We cannot find the economies of scope from running Shinkansen service and local train services. And, we have ambiguous results of the relative productivity of the local train companies which were separated from the JRs due to the opening of Shinkansen and now operate as the third-sector companies. (3) From the business traveler's demand analysis between Kagoshima city and Fukuoka urban area, the rail, the air and the coach are competing in boarding time each other. The result implies that when the Kyusyu Shinkansen (Kagoshima route) opens in whole line in the future and the boarding time of train is shortened, the demand shift from other modes to the rail will be large.