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PHD STUDENT IN LAW & ECONOMICS

## **PHD PROJECT:**

**Studies on liberalization, regulation and antitrust policy on the Railway sector:**

- I. Analysis of the different structure and impact of the regulation framework towards efficiency considering the study of optimal vertical integration in the European railways industry;**
- II. Essential facility: optimal access pricing.**

## **ABSTRACT**

Railway markets have long been regarded and treated as natural monopolies, thus, state railways have been the principal and dominant players in most of the European markets. Railways can be thought of as a network utility, similarly to energy, telecommunication, and other industries. These utility are usually capital intensive, long-lived and immovable, and are usually significant both in terms of mere size and function.

On the way of opening up to competition this specific kind of network industry it is necessary to distinguish two different market levels: the railway nets or infrastructure and the services (freight and passengers).

The process of liberalization of the railway market in Europe, in order to create a single European market, has been for several years on the agenda of the European Commission.

In the White Paper (EC 2001) the Commission has stated that the development of the European railway system is a priority on the road of obtaining sustainable development in Europe.

The Phd project has been split into two principal papers:

## **I**

### **PREAMBLE:**

While there is a vast current economic literature available on the efficiency of railway industry there is very poor evidence about progress made on the sector's analysis affecting the economic impact of regulatory reform, the most relevant of which may be considered the paper "Railway Deregulation: a European efficiency comparison" (Friebel, Ivaldi, Vibes).

Therefore, this first paper will deal, after having studied the optimal grade of vertical integration and the comparative analysis of the Railroad regulatory system in the larger European states, will be principally focused on the analysis, in terms of efficiency, of the impact of the different kinds of regulatory framework.

### **AIMS:**

- study of the market structure;
- economies of scope and optimal vertical integration;
- regulatory reform and competition: overlaps?
- Analysis of the impact of independent regulation and disintegration on the efficiency of railway industry.

### **REFERENCES:**

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## **II**

### **PREAMBLE:**

Starting from the study of the *essential facility doctrine*, this paper deals with the problem of regulating an open access essential facility with the aim set by the regulator to achieve a suitable financing system for the crucial input (net) and a profitable competition in the downstream market.

The risk to be considered carefully is connected with the creation of a system that will be able to determine the achievement of an improved welfare, but that could also imply inefficient entrance.

### **AIMS:**

- study on the essential facility doctrine;
- analysis of network industries economies;
- regulation framework of the essential facility;
- study of the theory of access pricing with the use of game theory.

### **REFERENCES:**

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**Armstrong, M. (2001)**, *The Theory of Access Pricing and Interconnection*, Handbook of Telecommunications Economics;

**Gautier, A. and Mitra M. (2003)**, *Regulation of an Open Access Essential Facility*, Working Paper;

**Bassanini, A. and Pouyet, J. (2003)**, *Strategic Choice of Financing Systems in Regulated and Interconnected Industries*, Working Paper.