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Transaction and transition costs during the deregulation of the Swedish Railway market

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ABSTRACT

The research on regulatory reform has identified and measured three types of costs associated with the shift from monopoly to competition: transaction costs, misalignment costs and transition costs. In this article we use a case study approach to measure and compare these costs during the deregulation of the Swedish railway system from 2000–2015. Our case studies confirm earlier research that vertical separation and the introduction of competition in the railway markets result in comparatively small direct transaction costs. Extraordinary transaction costs in the form of interrupted contracts are also a minor problem for the railway system as a whole but might create major problems for the affected region. Our research concurs with earlier research on the British railway system and a CER study that misalignment costs seem to be significantly bigger and more troublesome to handle than direct transaction costs. Railway maintenance costs in Sweden using competitive tenders are increasing four to five times faster than railway operations with no measurable improvement in performance. Transition costs have been and continue to be important in the deregulated Swedish railway system. First, procrastination in the form of delayed changes in the allocation of train paths results in misalignment costs that seem to be growing. Second, adjustment costs in the form of handouts to the former monopolist have been ten times higher than the costs for interrupted contracts.

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1. Introduction

The Swedish railway system has gradually moved from a regulated vertically integrated state owned monopoly to vertically separated competitive markets with open access to the railway infrastructure. The deregulation process is not completed and numerous issues remain unsolved. In this paper we will look at costs related to the transition from monopoly to workable competition in the Swedish railway system.

The article has two aims. The first is to quantify transaction, misalignment and transition costs that have occurred during the last fifteen years of the Swedish railway deregulation. These costs

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http://dx.doi.org/10.1016/j.retrec.2016.05.002 0739-8859/© 2016 Elsevier Ltd. All rights reserved. are measured as the deviation from an imagined status quo situation with no regulatory change. The goal with the quantification is to provide insights into the relative importance of the different types of regulatory reform costs. The second aim is to discuss if and how the costs can be decreased. This article gives some input to whether the change from state owned monopoly to vertically separated competitive markets was favourable, but trying to give a full answer to that question would demand a different approach including most importantly quantifications of the benefits of the regulatory reforms.

The research reported in this article does not cover the whole railway industry in Sweden. In at least two additional submarkets in the railway industry – the market for rolling stock maintenance and the provision of services in railway stations – earlier studies have suggested that there exist important transaction and

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misalignment costs, see for example SOU, 2008:92. We have also excluded a measure of possible misalignment costs in the building of new infrastructure. The reason for omitting new infrastructure is that the political system repeatedly has favoured other projects than the projects with the highest socio-economic value. The political decision makers therefore might have made informed decisions based on more facts than a simple socio-economic cost and benefit calculation. We also lack access to necessary data from the physical planning process to carry out a complete evaluation of different investment alternatives. As a consequence we are not in the position to provide a percentage figure for the three regulatory reform costs researched in this article compared with the total turnover of the Swedish railway sector.

The empirical material is presented in small cases explaining the occurrence and magnitude of transaction, misalignment and transition costs.

The article is organized in the following manner. In the next section we discuss transaction costs, misalignment costs and transition costs. The overview of the theoretical concepts looks into the concepts theoretical content and gives examples on how these concepts have been used in studies of the deregulated railway markets or other deregulated markets. This is followed by a section with case studies. They present some of the most important occurrences of transaction, misalignment, and transition costs during the last fifteen years of the Swedish railway deregulation process. The article ends with a discussion and conclusion.

2. Theory

The deregulation of a regulated monopoly is in most cases accompanied by transaction costs necessary to govern the market transactions and costs of transition from a regulated monopoly to a competitive market. In the railway industry these costs can appear in the production of a product or a service, in the coordination of infrastructure investments and allocation of railway paths or in the organization of the production and marketing of products and services.

In this article we will present and study the most important transaction costs and transition costs that have occurred during the last fifteen years of the deregulation of the Swedish railway sector. We will delimit our study to costs that result in negative economic effects. That is to say: 1) transaction costs driven by market imperfections, opportunistic behaviour, information asymmetry and misalignment of transactions and governance structures, and 2) transition costs in the form of sunk costs or transition costs exacerbated by procrastination of the necessary regulatory reform.

Transaction costs are simply put the costs of using the market as opposed to organizing transactions inside an organization. Transaction costs always exist in markets but can vary in size depending on firm strategies and firm interactions in the market. Misalignment costs are a category of transaction costs that have been found to be potentially much bigger in the railway industry than in other recently deregulated industries. Misalignment implies that the prevailing governance structure is not optimized in relation to the activities they are supposed to govern. Misalignment can appear in firms' incentives, in contractual arrangements and the regulatory structures.

Transition costs occur when political decisions result in changes in the market structure. They often result in reallocations of wealth from a firm, a group of firms or a group of employees to other firms or employees or society at large. In case the transition costs are very high negotiations between stakeholders can decide who shall bear these costs.

A challenge in these types of studies is that one tries to draw conclusions about socio economic impacts based on financial flows. The flows are between companies, between government authorities or both. The difficulty is to know when the flow is just a transfer and when it represents a use of resources (and in the latter case, whether this use of resources is an investment or a spill). To make the matter more complicated, it is not always clear in the literature whether the authors aim to analyse the fiscal effects for the government or to analyse the total effects for society. The aim in this article is to analyse the societal effects, i.e. the use of resources. Since the flows are of very different character, developing a formal model does not help in deciding whether a flow represents a resource use or a transfer. Our judgement needs to be of a more qualitative nature, based primarily on our knowledge of the background, the sequence of events and the actors involved. Furthermore since information is often scarce, evidence on the character of every flow is not available. The conclusion from this should not be that this branch of research needs to be abandoned; in such a case little knowledge would be developed. A more balanced conclusion is that the focus should be on magnitudes and on types of costs, not on precise estimates of single costs.

2.1. Transaction costs

The concept of transaction costs is often given two different connotations in the research of deregulated markets. In one strand of the literature transaction costs occur because of market imperfections. These transaction costs will gradually disappear as a consequence of two basic forces - selection and adaptation - that operate on all organizations in markets. Either the firm will adapt and attain greater economic efficiency, suggesting that if there is a performance penalty associated with inappropriate governance of transactions, misaligned firms will change so as to reduce or eliminate this misalignment. Or the firm will disappear because firms can rarely change successfully and that few firms will successfully realign their improperly governed transactions. These unsuccessful firms will be "selected out" of the population (Nickerson & Silverman, 2003). In another strand of the literature transaction costs equal making use of the market mechanism (Coase, 1937).

In the last five years has emerged a significant body of empirical research on transaction costs in the deregulated railway markets. Different measures of transaction costs have been tested and both country studies and cross country studies have been carried out. Merkert, Smith, and Nash (2010) tested the hypothesis in the transaction cost literature that higher transaction costs result in poorer economic efficiency. To study this hypothesis the authors made the opposite assumption that higher transaction costs are associated with higher technical efficiency in railway operators. The research looked at 43 railway operators in Great Britain, Sweden and Germany. The researchers couldn't confirm their hypotheses because in their statistical material higher transaction costs imply worse technical efficiency. Merkert alone or in collaboration with other researchers have studied the magnitude of transaction costs in European railway markets. He generally finds that they are comparatively small or less than 10 per cent of the turnover of the railway firm.

Merkert (2010) viewed transaction costs as the costs to prepare, negotiate, carry out and supervise contracts. He therefore measured transaction costs as the salaries and other cash payments to managerial and administrative staff at the railway operators started after the deregulation in Great Britain in 1996. He excluded costs for consultants and the costs for the regulatory bodies in the measure of transaction costs. This type of measurement is in line with the research based on Coase (1937) conceptualisation of transaction costs of turnover increased from 2.86 per cent in 1996 to 4.27 per cent in 2008. Merkert et al. (2010) also concluded that the

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