

INSTITUTIONAL DIMENSIONS OF CROSS-BORDER TRANSPORT

– Introduction to the Theme of the Special Issue –

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1. INTRODUCTION

Transport is a complex system composed of infrastructure, logistics and information subsystems that direct the actual movement of vehicles, ships and airplanes. Most transport flows take place within countries, but the international dimension is increasing. For example, the ratio between exports and GDP in the world economy has increased from about 1% in 1820 to about 18% in the year 2000¹. This tendency towards internationalization calls for increasing coordination of activities in and among countries. Despite the international character of transport, countries differ substantially in the routines used to deal with transport problems. These differences are related to factors like, for example, differences in economic development as high income countries usually put greater emphasis on the environmental impacts of transport than low income countries. Another reason for differences among countries is that institutional arrangements differ. In this special issue we analyze these differences in more detail where special attention is directed to the theme of sustainable transport.

Researchers in the field of sustainable transport have gradually become aware of the large importance of institutions. For example, regulatory reforms and institutional change have had large impacts on trade and transport during the last decades. Institutions may be defined as socially devised constraints that shape human interaction^{2,3}. A related definition is to describe institutions as social rule structures that govern behavior. These structures can be both formal and informal. Thus, institutions do not only pertain to formal rules like legislation and regulations, but also to informal rules such as management practices, values and governance. The essence of institutions is that they structure incentives in human exchange and interaction.

An important reason why institutions are important is that they provide a basic level of justice and equity in society. Issues of justice are, however, not the only reason institutions exist. Coase⁴ and North² have called attention to the economic importance of institutions through the concept of ‘transaction costs’: when transaction costs are high, institutions matter. For a broader review on the theme of institutions and transport we refer to Rietveld and Stough⁵. In the present special issue we focus on the importance of institutions on cross-border transport.

2. INSTITUTIONS AND INTERNATIONAL TRANSPORT

The nation state has become a dominant factor in the formation of formal institutions: national legislation has become more abundant than ever. Therefore, institutions tend to be similar within countries. Two countervailing trends can be observed in the mean time. On the one hand, in many countries sub-national regions have become more independent giving them broader scope to follow their own policies and formulate their own regulations. On the other, supra-national bodies are gaining power. In Europe, for example, this has led to a shift of emphasis in legislation away from national governments and toward the Union.

The institutional and cultural differences between countries are, however, still pervasive. This leads to higher costs for international transactions compared to domestic ones⁶. Thus, national borders generally have a negative or dampening impact on the intensity of spatial interaction, implying a bias towards domestic partners in transport and transactions. This favors short distance transport patterns, which may be environmentally positive. The increasing importance of the EU may be expected to lead to reduced border friction and thus to

broader spatial interaction patterns. Nevertheless there is strong evidence that even after stripping borders from most of their formal and financial trade impeding aspects, border related barriers to trade and spatial interaction remain large. This becomes visible for example when one compares interregional flows within a country with international flows. For activities such as freight transport, passenger transport, telephone traffic and migration, the level of spatial interaction between regions within a country appears to be 2 to 20 times as large compared to regions in different countries at comparable distances⁷. Similar results were found by McCallum⁸ and Helliwell⁹ for trade between the USA and Canada.

Comparing the USA and Europe, territorial differences are especially interesting because in Europe there are so many countries within the European transport network that additional costs for transport across-borders are a historical legacy. One telling example is European air traffic control that is still organized on the basis of the territories of individual countries. This has huge consequences in terms of costs, safety and capacity of the airways. Another clear example is freight transport by rail in Europe, where rail has a much smaller market share than in the U.S. This has to do with the large discrepancies in technology used in the various countries (voltages, equipment, railway security systems). Another factor is that the influence of the national railway companies in Europe is still very strong, and entry barriers for international railway companies are high, both of which produce negative impacts on the quality and price of international freight railway services.

In addition to a general analysis of institutions on international trade and transport we pay special attention to the theme of institutions and port development. The reason is that international trade depends to a considerable extent on seaports, and the port sector operates under rather specific institutional conditions. Not only are seaports characterized by a high degree of unionization, but also by complex mixtures of national and regional public interventions combined with private sector initiatives. This leads to themes such as fiscal federalism and fiscal competition. The institutional setting of seaports seems to be an important determinant of their stagnation or success.

3. CONTENTS OF THE SPECIAL ISSUE

This special issue summarizes some of the contributions and discussions in Focus Group 5 of the STELLA-STAR network. Starting in 2002, a thematic network

known as STELLA (*Sustainable Transport and Links and Liaisons with America*) established new ways for researchers in Europe, Canada and the USA to share the results of research into sustainable transport. The paper in this issue by *Black, Lee-Gosselin and Nijkamp* provides an overview of the STELLA-START activities, where it should be noted that the theme of the present special issue is only one of the themes addressed in the broader programme. Black et al. review the need for improved international diffusion of such research, and for undertaking cross-national comparative studies. A retrospective view is given of the core research issues that would best be pursued by ongoing international initiatives of this type.

Brooks notes that borders between countries were originally established as a demarcation of territory and nations sought to defend their territory from enemy incursion. As countries became more trade-oriented, walls became less important and border officials concentrated on meeting customs and immigration concerns. Since the terrorist attacks of 2001, borders have once again been seen in the light of their original purpose as security concerns have come to the fore. In the context of trans-Atlantic trade and transport, she discusses the existing research for three types of freight moves – marine, air, and intermodal container. The challenges that borders have traditionally presented for freight are regulatory, infrastructure and informational in nature, but more recently security has become not so much a fourth pillar as an umbrella under which the other three must operate.

De Groot, Linders and Rietveld explore the impact of institutions on international trade. Ineffective institutions and bad governance increase transaction costs and reduce international transport flows. They show that a more explicit analysis of institutional differences can account for several puzzling results in the empirical literature on bilateral trade. More specifically, they show that differences in the effectiveness of institutions offer an explanation for the tendency of OECD countries to trade disproportionately with each other, and with non-OECD countries, as well as for the positive effect of GDP per capita on bilateral trade.

Stough reviews the long running development of ports and their regions during the past century in terms of wars, technological change, political change and globalization. As such, ports have needed to adjust to these conditions to maintain their competitiveness. They have done this by adapting their physical and institutional infrastructures and the adoption of new technologies. He argues that institutional adaptation is the most important

way in which ports have changed to remain competitive. By means of four case studies an analysis is carried out of the problems and responses made by the ports followed by an institutional examination and evaluation of the adjustment process pursued.

Another contribution on institutional aspects of port development is given by *Ubbels* who focuses on Western Europe. He notes that despite the growing role of private involvement in recent port developments, most maritime trade is still largely handled in ports where investments, pricing and other managerial decisions are, to a varying extent, dependent, or at least influenced by public bodies. He shows that the extent and type of public intervention differs considerably between ports in the Hamburg – Le Havre range. The wide variety in ownership, financing and management of ports throughout Europe indicates that there is no level playing field at present. Because ports operate in an increasingly competitive environment this may lead to situations of unfair competition.

Komornicki discusses the consequence of barriers on transport between the new accession countries and the existing countries of the EU. The paper discusses five types of institutional barriers: lack of consistency in the transport policy of the state in the transition countries, inertia of the spatial development plans in the domain of infrastructural development, inertia in functioning of the large state-owned carrier companies, the excess liberalization of the procedures in the domain of protesting against and blocking the investment projects and inflexible policy in the domain of improvement of road safety. Examples of these institutional barriers are given for the case of Poland and its neighboring countries, in particular Germany.

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