

Comment on:
Effects of the elimination of train path charges on the
competition between bus and train –
Development of travel activities and the choice of means of
transport in German long-distance passenger transport
(by Christian Burgdorf, Alexander Eisenkopf
and Andreas Knorr) *

BY CHRISTIAN BÖTTGER

The article presented by Burgdorf / Eisenkopf / Knorr addresses the topic of modal split changes caused by government decisions on road tolls or rail track access charges. This topic is hotly debated in Germany currently as the government is desperately in search of new policies that will help to reduce carbon emissions in the transport sector without frustrating voters too much. In the light of these discussions, this type of research is extremely relevant not only for academic purposes, but for advising politics.

The authors have developed an empirical model to examine the changing modal share of different transport modes if the cost parameters are altered. One mode of transport that is examined is long distance railways. Track access charges could be reduced to the level of direct cost of train operations. For the model, the authors assume that the entire cost saving

* Die Qualitätsprüfung / -sicherung des Beitrags „Effects of the elimination of train path charges on the competition between bus and train – Development of travel activities and the choice of means of transport in German long-distance passenger transport“ von Christian Burgdorf, Alexander Eisenkopf und Andreas Knorr erfolgte gemäß dem auf der Homepage der Zeitschrift für Verkehrswissenschaft dargestellten (Alternativ-)Ansatz zur transparenten Qualitätsprüfung und -diskussion (siehe www.z-f-v.de → „Einreichung von Beiträgen und Begutachtung / Qualitätsprüfung“). Dabei wird von einem fachkundigen Wissenschaftler eine zustimmende Stellungnahme zur Veröffentlichung des Beitrags eingeholt und zusammen mit dem Beitrag veröffentlicht.

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from reduced track access charges – 819 million Euros – would be passed on to the customers with a reduction of ticket prices by 20 %. The other mode that is examined is long distance busses. It is assumed that a road toll would be imposed on busses leading to an increase of ticket prices of 0.6 cent per pkm (the base price level has not been mentioned). Both measures have been suggested in the political debate in Germany to support long distance railways.

The authors have modelled the impact of these cost changes on the usage of rail and bus with their model. Beside the benchmark case without any price changes, the impact of the rail price reduction, bus price increase and a combination of both measures has been evaluated. The model shows a rather inelastic reaction to the price changes.

The model is based on a survey from 2014 with 900 interviews. Given the dynamic development of the German long distance bus market since then, the data might be deemed to be outdated. However, the authors explain that they compared the data with a more current set of data from Telefonica mobile network. The article does not provide further explanation information about this study.

From the reviewers point of view, there has been a regrettable trend in transportation studies over the last years to conduct all kind of statistical juggling with empirical data without scrutinizing the quality of the underlying data. In many studies, the methods used in the survey are not described properly². This criticism can partly be applied on this article: Some information about the study from 2014 has been revealed. However, there is no information about the Telefonica study that has been used to check the actuality of the data set. From the reviewers point of view, it should be essential in an article to reveal full information about the methodical base of any empirical data used.

In the „benchmark case“ of the model, the transport volume of busses is growing by 2.5 – 3 %, while the transport volume of rail is about to stagnate. This is contradicting the trend in the German market in recent years: Long distance rail usage has been growing by about 4 % annually since 2014, the transport volume of busses has been declining from its 2016 peak level.

The authors argue that these deviations do not have a significant impact on the outcome of the model. Probably, this claim is correct, however, it would have been worth testing this hypothesis in detail.

In recent decades, a variety of studies has been conducted to identify the elasticity of prices and other parameters in passenger transport. So far, the results of these studies are

² Even in the reports that form the data base for the official German transport planning (Bundesverkehrswegeplan), there is no proper description how the underlying empirical data have been obtained. Data from different surveys have been merged without further explanation. Predictions on elasticity pattern have been made for market segments in which not a single interview has been conducted.

inconclusive³. In this article, the authors did not compare or discuss their outcome with other studies.

The discussion part of the article does not refer to the empirical model or its results. It rather discusses the regulatory framework in Germany for long distance busses compared with rail. The discussion starts with the hypothesis that the successful development of long distance bus transport in Germany has caused strong demand of protective measures for the rail sector. Actually, the transport volumes of long distance bus traffic have increased in the years since the opening of the market from 2013 – 2015. Since then, the transport volumes have been declining. Therefore, the starting hypothesis is to be doubted.

The discussion about the fiscal and regulatory framework for transport in Germany is highly urgent today. The recent government program for emission reduction contains a number of measures that increase the taxes on air transport, while the sales tax on long distance rail transport will be reduced. The long distance bus operators requested the same tax privileges, so far without success.

The authors claim that the assumed toll rate for busses for their model would more than cover the infrastructure cost caused by busses. It is a common claim among representatives of the road traffic industries, however, the reviewer is doubting this claim: The data on transport cost in Germany is regrettably incomplete. While the grants and subsidies for railways are clearly visible in the federal budget, there is no comprehensive overview of subsidies for other transport modes. Passenger air transport is relieved from most taxes and levies (no sales tax on international flights, no fuel tax, very limited CO2 emission compensation), additionally, a number of indirect subsidies are supporting air transport (e.g. air traffic control, airport financing, security cost) with no official statistics recording those subsidies. While the cost for the federal and the state road network are as transparent as those for rail, there is no statistics recording the cost for road on the level of districts and municipalities⁴. Based on old data and recent estimates, the cost for local roads exceed those on the state and federal level, but in most discussions, they are not considered at all. Therefore, the reviewer doubts any claims that busses or any other road vehicles do cover their cost as there are no statistical data to prove or to reject such claims⁵.

The authors argue that a reduction of track access prices for rail and the implementation of road tolls for busses would distort competition. The observation is formally correct, but it is

³ e.g. KCW et.al. (2018): Gutachten zur Bestimmung der Elastizität der Nachfrage der Eisenbahnverkehrsunternehmen, pp. 113 – 141

⁴ Until 2011, these cost – at least partially – shown in the national transport statistics. Since 2012, reporting has been abandoned completely, see: Verkehr in Zahlen 2018/19, page 116.

⁵ The reviewer has published a paper with an indicative estimate of the complete cost for all modes of transport in Germany: Böttger, Christian (2017): Abschätzung der Kosten der Verkehrsträger im Vergleich, see <https://www.netzwerk-bahnen.de/assets/files/news/2017/studie-abschaetzung-der-kosten-der-verkehrstraeger-im-vergleich.pdf>

wrongly suggesting that this distortion would be unique in an otherwise fair market environment. In fact, the entire fiscal and regulatory setting in the German transport market is full of inconsistencies and contradicting policies. For example, on the one hand, the railway infrastructure is publicly financed, but the infrastructure company has to generate „capital market adequate returns“ that are distributed to the government while not interest payments or returns are imposed on any other transport infrastructure. The finance support for railways is justified with rail being the most ecologically friendly form of transport, however, it is the only transport mode that is burdened with charges for emissions. A further reduction of track access charges would add to this chaotic framework. However, it raises another interesting question that has not been discussed so far: Most measures for transport implemented by the German government as part of the emission control program are subsidies to convince users to change their mobility pattern. All of those lead to dramatic distortions of transport markets.

In summary, the reviewer does not share all the views that the authors are expressing in the article. Some aspects of the empirical work should have been described in more detail. The same applies to some statements on the fiscal and regulatory environment for long distance bus and rail. However, this article is an interesting contribution to two highly relevant discussions. On the one hand, the understanding of customer behavior regarding transport mode choices needs to be improved. On the other hand, more analysis and discussion is needed to improve the fiscal and regulatory framework for all transport modes. This article provides interesting views on these topics and it worth being printed and being read.