

THE IMPACT OF THE HIGH SPEED TRAIN IN THE DEVELOPMENT OF ANDALUSIA: AN APPROACH

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I. INTRODUCTION

The first high-speed railway (HSR) that operated in Spain was launched in 1992, with Andalusia as the destination (Madrid-Cordoba-Seville); in December 2007, another line (Córdoba-Antequera-Málaga) was completed in the region. A further route, the Seville-Antequera-Málaga line, is planned for 2013. At the time of writing, April 2012, Seville and Málaga are linked via Córdoba using AVANT trains, which run on high-speed rails.

One of the objectives of the Strategic Plan for Transport Infrastructures in Andalusia 2007-2013 (known as PISTA) is to link all the major cities in Andalusia and the port of Algeciras Port via an HSR network. This involves adding a new main line to the current network. According to estimates, once the main line is finished, there will be a total of 1697 km of HSR in Andalusia, amounting to 17% of the total rail network in Spain. Most of the Andalusian population (98.3%) will be less than 1 hour from the nearest high-speed network (PISTA, p. 151).

From both a political and social standpoint, the Spanish HSR (known as AVE) has been heavily promoted and its potential to develop the productive output of the region and become a key element for territorial cohesion in Spain has been emphasised. However, rigorous studies do not support these opinions, stressing dissonance between the high investment costs involved and the need for or usefulness of the project. The main opinion voiced in empirical studies regarding the basis for the decisions to invest in high-speed trains rather than in other modes of transport, and in some lines rather than in others, leaves no doubt that political reasons have prevailed and that priorities have been set leaving aside considerations of benefits and profitability.

II. QUANTITATIVE DATA ON THE INVESTMENT IN THE AVE

The planned investment in the AVE for the whole of Spain is substantial: PEIT plans to invest EUR 248,892 million over the 15 years allocated to the plan (2005-2020), and almost half of this (125,000 million) will be invested in HSRs. Moreover, 60% of all the funds required for PEIT are drawn from the Spanish General Budget and the remaining 40% from other sources. However, up to 80% of the funds specifically allocated to the AVE are part of the General Budget. Of this share, approximately 17% of the investment will go to Andalusia. But it seems reasonable to raise some doubts regarding their decisions.

III. ECONOMIC PROFITABILITY

In 2008, the European Commission established that an HSR with a passenger load less than 9 million passengers per year could be justified only under special circumstances. De Rus and Nombela (2007) estimated a similar figure for lines of 500 km, whereas Vidal Olivares estimated that the profitability threshold ranged between 3 and 5 million passengers per year. In Andalusia, the Madrid-Seville line reached a peak of 3.6 million passengers in 2006 and then declined; the Madrid-Málaga did not reach 2 million passengers in 2011, while the forecasts for the future Seville-Málaga line are 2.5 million passengers for the first year.

As De Rus and Inglada point out that (1993, p. 28) “*the fundamental problem of high-speed railways in low-density traffic networks is their total cost: very high and insensitive to the volume of demand (...) in this way, population density largely determines the average cost per passenger*”. If this is the case, then it is impossible to justify the economic viability of high-speed trains in Spain, except in very specific cases.

IV. ENVIRONMENTAL AND SOCIAL RETURNS

Studies on the environmental benefits of the AVE have yielded contradictory and its will depend on the amount of traffic won from more polluting modes of transport, especially airplanes (Albalade and Bel, 2011).

The results of social returns, as measured by social cohesion and the effects on economic activity are, at the very least, contradictory. The radial design of high-speed networks facilitates mobility between large cities. However, with few exceptions (eg, Ciudad Real in Spain), this design is negative for the small and medium towns located between the larger ones, because they lose financial capacity and the time-distance relationship is seriously altered. Although HSRs dedicated to freight have been shown to be positive for economic growth in other countries, the Spanish model has opted for passenger transport alone, despite it being demonstrated that this does not add new factors to the productive economy other than those already present before the HSRs were implemented (Albalade and Bel, 2011).

In the case of tourism, there are two contrasting factors that could strongly influence the impact of the AVE on this sector. On the one hand, increased mobility would potentially allow a greater influx of tourists; on the other hand, although this increase would foster

more travelling, there would be fewer overnight stays in a particular destination (Bonnafoous, 1987), and so its influence on tourist spending, which is at the heart of true profitability, is not a priori positive or negative.

V. THE HIGH-SPEED RAIL AND THE ANDALUSIAN TOURISM SECTOR

For an optimal assessment of the impact of the HSR on tourism, some variables should be taken into account: Firstly, how many tourists would not have gone to a given destination had the HSR not existed? Secondly, does visitor spending justify the returns on investment? Thirdly, we need to know what kind of tourist visit the destination and what is their normal means of transport.

Table 1 presents some striking figures related to the objectives of our study. Seville and Malaga are the largest cities in Andalusia and are connected via the AVE to Madrid, the Spanish capital. Vidal Olivares⁷ points out that the AVE does not influence foreign tourism but may promote domestic tourism. This observation is linked to the concept of generalised transport costs, ie, the cost of transportation must be computed not only in terms of fares and time, but also in terms of waiting times and access to each mode of transport. As shown in Table 2, the generalized transport costs currently estimated for the AVE in Andalusia do not make it sufficiently attractive for travellers to abandon other forms of transport, since in all cases, the generalized costs of travelling by the AVE are higher. In fact, conventional trains are more competitive than cars on domestic routes within Andalusia (Seville-Cordoba, Seville-Malaga, Malaga-Cordoba). This supports the view of authors such as Bellet et al. (2010) and Vickerman (1997), who have argued in favour of improving the conventional railway network rather than investing in new lines for the AVE.

A more comprehensive analysis should take into account the reason for travelling to a given destination. Table 2 shows the average travel time costs regardless of the reason for travelling. However, in tourism economics it is assumed that the way travelling times are evaluated differs according to the reasons for travelling. Whereas on business trips travel time has to be reduced as far as possible, on a holiday trip some tourists may well appreciate the journey in itself. However, in the sun and beach tourism that predominates in Andalusia, travel time is a cost that has to be reduced (Bull, 1991).

The current AVE lines in Andalusia comprise two middle-distance routes that should attract some tourism from central Spain. However, the situation of the two major cities, Seville and Malaga, is very different. Seville mainly hosts domestic tourism, whereas foreign tourism predominates in Malaga. The AVE has been operating in Seville for 19 years and in Malaga for only 3 years. The number of tourists arriving by car is similar in both provinces. Access to Malaga by plane is mainly by foreign tourists, whereas the majority of flights to Seville airport are mainly domestic. Consequently, the potential for growth of the AVE as a mode of transport should be greater in Seville than in Malaga.

Nevertheless, although the Madrid-Seville line absorbed most of the air traffic between the two cities when it began to operate, in recent years its share rate in tourist transport has decreased, whereas the share rate of other forms of transport has increased. Regarding the Madrid-Malaga line, the predominantly foreign source of tourism in Malaga explains the decline in occupancy after the initial promotional price period ended. This decline is in con-

trast to the sharp increase in cruise tourism and airport transits and contradicts the optimistic expectations expressed at that time and which are still defended by current officials.

The contribution of the AVE to the development of tourism in Andalusia does not seem to be relevant, at least regarding the lines currently in operation. This situation has become further complicated by the launching of the Madrid-Valencia line, which is directly competing with Malaga for domestic tourists from central Spain looking for sun and beach destinations.