

Plurinational states and infrastructures

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ABSTRACT

Mature economies tend to invest less in new construction and more in maintenance and management. This is particularly important in the case of Spain, which in addition to being a mature economy presents a huge excess capacity in all interurban modes, and particularly in the radial corridors. The key to a reorganisation of the infrastructure policy in a hypothetical state that recognises itself as multinational is the transfer of management to units forming the federation; in some cases, ownership should be transferred as well. In this regard, this paper presents a new model of infrastructure policy for a different Spain, and it does so by taking advantage of lessons taught from other infrastructure policies widely applied in parts of Europe and the US.

Keywords: territorial policy, transport, management, funding.

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INTRODUCTION

Mental frameworks set invisible boundaries—invisible but effective—to ideas. Considering proposals of infrastructure policy in Spain from a *plurinational* perspective inevitably leads to the imposition of restrictions imposed by proposals of generalisable application to Spain as a whole. This will happen until one realises that thinking from a *plurinational* perspective breaks away from this restriction, itself enforced by a generalisable proposal. Indeed, this is the heir to Jacobin federalism, the only *federalism* that has held the potential promise of progress in Spain since the traumatic collapse of the First Republic in 1874. This issue is pivotal in the debate on potential changes in the infrastructure and transport policies, because the recent past has commonly witnessed condemning statements that have put paid to the debate. These include statements

like: “But X only wants this”; or “Then everyone will want it and it cannot be given to everyone” (note, incidentally, the mutually exclusive character of both arguments).

Here, in fact, lies the key to the heart of the matter. A plurinational perspective demands conceptions based on the fact that something is desired either by just one or by everyone, to be put aside. Because just as plurinationality is not something *generalisable*, the ability to *generalise* cannot be a requirement of the policy model in a plurinational state (although it can sometimes be a convenient aspect from the technical and operational standpoint of the policy itself). This has, on the one hand, a symbolic dimension: *the nation*; and on the other, a very concrete dimension: *the state*, the distribution of power.

Within this context, the infrastructure policy model, implying the distribution of political power in relation to infrastructure, has a special relevance. This is because this policy has been one of the most relentless instruments applied by the State in pursuit of its goal to construct a single nation (Bel, 2010), namely, the Castilian-based Spanish nation. This constitutes a specific policy that is part of a general orientation of Spanish public policy, which began in the 18th century and became more ingrained in the 19th century. Since then, the following concept has been consolidated: for the political-administrative construction of the modern Spanish State “everything should be planned, ordered and supervised from a nerve centre, a capital, a headquarters of government” (Álvarez, 2001:535). To be precise, one of the first areas to which this trend was applied was territorial homogenisation, with “the non-explicit objective (and possibly unaware, in as much as they believed in the reality of the nation) being that it was to give an ‘image of unity’ of the social body” (Álvarez, 2001:535). This is an observation that corresponds perfectly with the view of Benedict Anderson (1983) on nationalism as a project for the implantation of *constructed national cultures* to create the *imagined community*.

This approach also connects well with the vision that Hobsbawm (1990) sketches of nationalism as the top-down creation of an institutional and social structure, with the creation of infrastructure policy for it being instrumental. In this light, it is easier to understand statements made by the Minister of Development, Magdalena Álvarez, regarding the policy of extending the high-speed railway in Spain: “We are sewing Spain [together] with steel cables. This is the real way to make a country, to defend the unity of Spain: to sew it together with steel threads” (interview published in several peripheral newspapers on May 11, 2008). Or a more recent affirmation by another Minister of Development, Ana Pastor: “The Spanish AVE (high-speed train) makes us equal” (*Informe Semanal TVE*, April 21, 2012). It is not at all common to find justifications of this kind in the infrastructure policies of neighbouring countries.

This text proposes, first of all, to provide a diagnosis of the instrumental function of the infrastructure policy in the construction of the Spanish nation. Then, I will go on to illustrate some of its most relevant results within the context of our discussion. Finally, I will propose changes to the institutional design in the ambit of infrastructures and, therefore, competence in the applicable policies, in a way that encompasses a plurinational approach (far) more appropriately.

THE CENTRALISED STATE: GENESIS, GROWTH, AND SPLENDOUR

A little over 300 years ago, the end of the War of Spanish Succession brought with it the political unification of the Hispanic monarchy. The utter control of the monarch over the policies and estates of both the Crown of Castile (which he had previously held) and of the territories of the Crown of Aragon empowered him to make policies applicable to all the territory that now forms Spain. Thus he used this faculty to implant the French model of absolute centralisation of power (Álvarez, 2001; Vicens, 1996 [1952]).¹

The inaugural landmark of the centralised state dates to the general regulations for the management and government of the major mail and postal offices in Spain (*Reglamento General para la Dirección y Gobierno de los Oficios de Correo Mayor y Postas de España*). These were promulgated by Felipe V on April 23, 1720 during his journey, establishing the character of royal highways and, therefore, setting a priority action targeting eight routes, six of which converged in Madrid². Later on, due

1 The fact that, as suggested by the interesting work by Grafe (2013), the monarchy was unsuccessful in achieving its goals (unlike the French case) does not make any less valid the observation that these goals were pursued with determination and at any cost.

2 This thesis is more extensively developed in Bel (2010) and Bel (2011). Significantly, the English edition of *d'Espanya, capital París* is entitled *Infrastructure and the political economy of nation building in Spain, 1720-2010* (Bel, 2012).

to the fact that the municipalities responsible for funding these roads and lanes did not do so diligently, the priority established by King Fernando VI promulgated the Royal Writ, in 1747, which established the possibility of financing the royal highways, alone, by means of the Crown treasures. Note that for the first time in the history of Spain (whatever the meaning of Spain might be), the State directly assumed financial responsibility for the construction of roads. Shortly thereafter, in 1761, Carlos III launched a highways plan, which ultimately excluded the two planned routes that did not converge in Madrid. Consequently, there were just six, which all converged therein, coinciding with the current highways known today as A1 through to A6. Thus, the current map of motorways in Spain is, largely, heir to these three provisions laid down in the eighteenth century.

The second milestone in the development of the centralised state was the extension of the railway network in the second half of the 19th century. The initial deployment of the railway was generally based on the demand of existing traffic (except for the Madrid-Aranjuez line, promoted by the future Marqués de Salamanca) in the mid-nineteenth century. It was therefore concentrated around a series of routes, the funding of which was the responsibility of private investors. Concerns about the situation of rail isolation threatening Madrid was one of the main factors leading to the promulgation of general legislation, established by the General Railways Act, of 1855 (Mateo, 1978, p. 56). In summary, this law established the preferential character of five radial lines that were to connect Madrid with different ports and borders of the peninsula. These lines consumed practically all of the huge volume of budgetary resources allocated to subsidising the construction of the railway. Later, the second *Ley de Ferrocarriles* (railways law) of 1870, contemplated the radial line in the north-west as preferential, and it set the priority of connecting Madrid with all the Provincial capitals throughout the peninsula, drawing the cost from all necessary public resources.

Analyses of the infrastructure and transport services policies applied in the 18th and 19th centuries show that the legal norms and the state budget were used to organise political power and to meet the needs of the Crown and its capital (Bel, 2010). This gained special importance as of the decade 1840, when an effective state control was established by centralised interests in Madrid, the capital in which “liberalism should become the hub of centralised governmental machinery” (Carr, 1970:203).

This was done irrespective of the priorities of the economic system and the needs of connecting hubs of economic production. The latter were systematically left out of the established priorities, and were therefore placed in the rearguard when it came to the allocation of state funding (in the event such funding was applicable). The administrative and political goals—namely the construction of the nation—were subordinate to the efficiency of the transport and its contribution to productivity of the economy. Indeed, it always enjoyed a higher rank.

At this point, it could be argued that these decisions created what is called *path dependence*. That would explain why this model was to be applied in the future, without necessarily following the objective of national construction, but rather as a natural continuation of an allocation dynamic stemming from an initial accidental event, such as the highway policies of the 18th century or railways of the 19th century.³ However, this thesis clashes with a necessary requirement to affirm path dependence. It is not possible to state that it is a natural evolution of the market, without further exogenous interventions required for the evolutionary dynamics of the economy.⁴

3 This is the thesis exhibited in the work of Myro, Martí, and Rey (2014), presented at the International Conference of Regional Science 2014 (Zaragoza), which has not yet been published. Their results contradict those obtained in the simulation of extending the road network published by Adamatzky and Alonso-Sanz (2011) using the plasmodium model organism, *Physarum polycephalum*. This organism has been adopted as a model for a large number of studies due to its Ameboid movement and cellular motility.

4 To gain greater insight into the meaning and characteristics of path dependence, see David (2007).

In the practical field, this path dependence hypothesis is refuted by the sequence of events in the subsequent modernisation of infrastructures, the network of busy highways (motorways and tolls). Since the state's budgetary availability was very small at the beginning of the 1960s, the government decided to begin to implement user-financed highways, by introducing tolls. The decision to use tolls led to the first major motorways, which followed the routes with highest traffic density and increased growth potential, i.e., those skirting the Mediterranean corridor and the Ebro valley. However, in the mid-1980s the model changed in favour of funding and developing highways with financing from the public budget. At this point the priorities adopted were the six radial routes formerly established in the highway policies of the 18th century. This was the case, and several non-radial routes with higher traffic intensities were postponed in favour of radial motorways.

The validity of the pattern of radial prioritisation irrespective of demand in infrastructural development is found again in the most recent modernisation, that of the implantation of the high-speed railway (AVE), which has been funded entirely on state budgetary finances. Again, the priority lines chosen are the six classic radial routes. In fact, the Barcelona-Valencia route was the one with greatest traffic density before the implantation of the AVE, and even today there is still a single-track stretch (*L'Hospitalet-Tarragona*; the last forecast of the entry into the service of a two-track infrastructure is 2017). This stretch lacks the technical benefits of the AVE, as well as being insufficient to meet the demands of freight transport by rail, which is a critical factor affecting the Mediterranean corridor, the channel for most of the country's exports from the mainland.

HIGHLIGHTS OF THIS SPANISH INFRASTRUCTURE MODEL IN THE CONSTRUCTION OF A NATION

Let us look more closely at this pattern of the radial connection of Spanish infrastructures, generally financed by the state budget. This is so in the case of overland networks, with a design both of extension and technical benefits regardless of demand. This

has resulted in a repetitive mismatch between infrastructure supply and transport demand; indeed, the latter has traditionally been unable to absorb the great endowment provided by the infrastructure. This mismatch was criticised by Jovellanos back in the 18th century (Jovellanos, 1795), and in 1867 by a special commission in charge of proposing a general plan for railways (Special Commission, 1867). With regard to the latest infrastructure policies, the mismatch between supply and demand has been documented and analysed by Bel (2010) and Albalate, et al. (2015).⁵

In recent decades, the railway (and as part of this, the high-speed tracks) and highways (particularly motorways) have been the modes of transport that have consumed most of the infrastructure-related investment in Spain. We do not know the precise amount of money invested in the AVE high-speed railway, since there is no public information providing total investment figures for the construction of the tracks and stations. The data compiled and estimated by Albalate and Bel (2011, 2012) place the accumulated investment up until 2010 at about 50,000 million Euros (constant data). By the end of 2016, the accumulated investment volume, executed or contracted, can be placed at between 60,000 and 70,000 million Euros (constant data). This huge investment of public funds has meant that the Spanish AVE network now has an extension of over 3,100 km in service, making it the second largest in the world in absolute terms, after China, and the first in relative terms, considering any relativisation factor (population, surface, GDP, etc.). For example, the density of the Spanish network in relation to the French network (the next largest in terms of extension in Europe) exceeds it by 50% in terms of km/inhabitant, leaving the remaining European countries far behind.

⁵ Other additional factors have also contributed to the excess in supply. For example, the importance of the public works construction sector in Spain and its close relationship with Spanish governmental institutions (Bel, Estache and Forcaud, 2014).

Furthermore, if we consider the network under construction, the superiority of the Spanish one is even more impressive.

By contrast, the density of use of the Spanish AVE railway network at the beginning of this decade, whether measured in passenger/km or passenger*km, was much lower than in other countries; For example, passengers*km for the AVE network in Spain equate around 1/5 of those in France, 1/4 of those in Germany, and 2/5 of Italy (Albalae et al., 2015). The trend in these differences has doubtless been aggravated, given that since then a large number of kilometres with low-density traffic have been launched.

The motorways network in Spain is also the most extensive in the whole of the European Union, there are well over 15,000 km of toll motorways plus toll-free highways or motorways (this figure is about 17,000 km if we add the dual-carriageways, according to the last annual report of the Ministry of Development, for 2014). According to the homogeneous data provided by Eurostat for EU countries, the kilometres of motorway in Spain in terms of population (per million inhabitants) far exceeds 300, well above comparative countries. In fact, this figure is only surpassed by Slovenia and Cyprus, countries that are difficult to compare given their characteristics. Notwithstanding, in this case also, having the longest network does not imply the largest traffic volume. According to recent OECD data, traffic density (passenger-km per km of motorway) in Italy was 4.3 times higher than in Spain, in France 2.8 times higher, and in Germany 2.6 times (Albalate et al., 2015).

The mismatch between supply and demand in Spain is also found in non-terrestrial modes of transport. Spain has the most airports apt for international commercial traffic of any country in continental Europe, enabling it to demand higher cost standards. It should be pointed out that in the air-travel sector the intensity of use of airports is not comparatively as low as in the terrestrial modes, since the Spanish

market, together with the German one, stands out among those in continental Europe. Despite this fact, many Spanish airports register null or marginal regular traffic. In 2015, up to 14 airports managed by AENA (a 100% publicly-owned company until 2001, mixed ownership since then, and always under the control of the Ministry of Development) have been used by less than 50,000 passengers.⁶ The panorama in the ports is similar. Ports of the state are dependent on the Ministry of Development, which has control over all 50 of them, declared *of general interest*. Albalate et al., 2015 have constructed the investment ratio for accumulated/traffic in tonnes, obtaining a figure of 6.2 Euros per tonne for the period 2005-2010 This figure is: 3 times higher than that of Italy and Germany, 3.7 times higher than that of Portugal, and 7 times higher than that of France and thus, represents a highly significant supply surplus.

For any economist with some knowledge of transport, this outstanding mismatch between supply and demand is a clear indication of the inefficiency of the infrastructure and transport policy. In recent years, empirical work has been published showing inefficiency in different sectors of infrastructure and transport in Spain. Generally speaking, and given the investments made in all modes of intercity transport, they promote the political objectives of centralisation (Bertomeu and Estache, 2016). Considering these results on the infrastructure policy in Spain, the changes in related planning, financing and management models could serve a twofold objective: (1) to achieve characteristics that are more consistent with a country that recognises plurinationality and recognises itself as a plurinational reality, both in the symbolic dimension and in terms of political power; and (2) improve its contribution to productivity and social welfare.

⁶ The same has happened with new airports with territorial ownership such as Lleida-Alguaire (autonomic), Ciudad Real (private, already closed to regular commercial traffic), Castellón (owned by the *Diputación Provincial* [provincial council]), and the international airport of the region of Murcia (autonomic).

AN INFRASTRUCTURE POLICY MODEL FOR A PLURINATIONAL SPAIN

This section is divided into different subsections, each of which refers to a mode of long-distance transport.

Road infrastructures

In general, the current system of government in Spain distributes the responsibilities for roads as follows: those that are of an interregional nature are competence of the general state administration, whereas intra-autonomic roads are under regional or provincial responsibility. Focusing on the high-capacity road network (motorways and toll roads), it must be said that it is already fully deployed in practically all road corridors in Spain. This explains the vast number of kilometres of highway referred to in the previous section.

Note that the most well-established handbooks for guidance on the need for infrastructure and service levels, such as the U.S. Highway Capacity Manual, places the threshold from which high capacity highways are needed on an *average daily traffic* (ADT) intensity at some 15,000 vehicles (a figure that is reduced to 10,000 when there is persistent congestion due to the design or significant proportion of heavy vehicles). However, in Spain, roads have been built with an ADT intensity of less than 5,000 vehicles and a tiny volume of trucks, such as the Benavente-Zamora A66. Moreover, the existing plans of the Ministry of Development even contemplate routes with an ADT intensity under 2,000 vehicles, such as Huelva-Zafra, Cuenca-Teruel, or Alcolea del Pinar-Caminreal, without any specific justification.

Clearly, apart from some very localised blank points, the endowment of high-capacity roads in Spain has long gone beyond reason and one of the consequences of this is that the maintenance and reconditioning requirements of this large-capacity network are continually growing. In this situation, a significant improvement in the planning, funding, and road management model would be for the regions (should they wish) to take charge of the powers related to the

state network running through their territory. This would involve both maintenance and reconditioning responsibilities, such as decisions related to funding these tasks, so they could choose to finance them under their budget, or through user-tolls, or other alternative formulas.

There is no reason to believe that the effectiveness of sub-central governments would be less than that of central government in this area, but it is reasonable to think otherwise. For example, sub-central governments can be more responsive to citizen preferences in terms of resolving blank spots and poorly serviced sections. On the other hand, and quite relevant in the case of Spain, this would help to streamline the system (which has become increasingly irrational), of funding state highways, since the territorial discrepancies in the use of toll roads are important. Thus, the citizens in each region could decide whether they prefer user payment (residents in the region itself mostly) or allocate funds from the budget to fund maintenance and reconditioning of the roads, by raising taxes or reducing other public expenditure.

This system is not original; it already exists in the USA. Most highways in the US were planned and built by the federal government, as part of the Interstate Highway System, promoted since 1956. More recently, the competencies on interstate highways were transferred to the states themselves, which are responsible for their management and for funding their maintenance and reconditioning. Each state takes the decisions that seem most pertinent to the citizens,⁷ and it is not unusual for the same freeway to have a toll in one state but not in the next, and then revert again. Finally, the citizens of each state decide whether to pay tolls or pay more taxes. Clearly to the extent that they internalise the benefits and costs of their decisions, divergences between states do not cause controversies such as those arising in numerous territories of Spain.

⁷ It should be taken into account that the federal government's authorisation is necessary to implement tolls on highways financed by federal funds.

In the United States, the regulation concerning elements related to road traffic is almost exclusively state-centred. However, in the case of Spain, it might be desirable for the regulatory powers relating to road safety to be partially retained by the central institutions. Ultimately, it would be somewhat inconvenient to have divergences in matters such as speed limits and other safety regulations, especially in comparatively small territories such as the autonomous regions. In any event, this seems to me a less relevant issue, from the perspective of the attribution of competencies according to governmental level, than that of managing the infrastructure itself.

The sub-central management of motorways is not exclusive to the US alone. It also exists in Spain now. Noteworthy are the cases of the provinces in the Basque Country and Navarra, which have the competence of managing the roads that run through their territory. Also the autonomous regions of the Canary Islands and the Balearic Islands are responsible for all terrestrial infrastructures in their respective areas.⁸

Railways: networks and services

Railways have very different characteristics to roads. The railway network is not characterised by atomised and free access, but it has traditionally been monopolised by state-private companies in its origin, with specific exceptions such as the *Ferrocarrils de la Generalitat* or the narrow-gauge railways (FEVE). At present, the incipient liberalisation of freight transport by rail is subject to strict regulation, because there is greater rigidity in the granting of user rights, and service coordination needs are very strong, so the integrated management of the railway network seems a reasonable option. This perspective is directly applied to long-distance passenger railway

routes as well as freight. However, it is also noteworthy that countries like the US and Japan have territorially segregated control, ownership, and management of medium-and long-distance railway infrastructures, without any technically relevant problems.

However, the case of short-distance rail services is different, as are those of a regional nature. The main function is to organise metropolitan mobility, as well as accessibility of the peripheries to the regional centres of population. Management has undeniable elements of territorial policy that transcend those of the transport of long-distance travellers and of freight, in which the elements of transport and mobility dominate (or should dominate) totally. That is why territorial management of local and regional railway services makes sense (as well as that part of the infrastructure that is not used in a systematic way for long-distance passenger services).

The notion of territorial management of the local and regional services is quite common in the developed world, and is even common in countries like France. With respect to Spain, Catalonia has advanced in this direction with the transfer of suburban services, but the inability of the Catalan Government to act on infrastructure has been a source of frustration at both the institutional and, especially, the user level. Thus, we should bear in mind that a history of systematic disparity in investments among the different commuter-train systems in Spain has led to appreciable differences in the capacity of the services.

Airports (and ports, by analogy)

As explained above, practically all Spanish commercial airports are managed in an integrated and centralised way by a company, AENA, which was partially privatised in 2015. However, the Spanish government still maintains the majority shareholding and control of its management. This implies that all the airports are considered to be a single infrastructure. Among EU and Anglo-Saxon (and OECD) countries, Spain is the only one of its size and population where airports are subject to integrated management, and where management and ownership belong mainly to the central government.

⁸ It should be noted that such a system is perfectly compatible with the Governments' interterritorial solidarity objectives to finance new work through existing mechanisms such as the Interterritorial Cooperation Fund (*Fondo de Cooperación Interterritorial-FCI*). After all, the Canary Islands—with exclusive competence in roads—uses funds from the FCI to partially finance their undertakings. However, it must be remembered, once again, that the provision of high-capacity roads in Spain has long since exceeded the thresholds that would be reasonable, from both technical and comparative perspectives.

The fact there is not a policy of own service provision (and investment, tariffs, and commercial plan) for airports may have been one of the main factors explaining the major discrepancies between the profitability levels of each of airport (it is worth pointing out here that Madrid airport has recorded poor profitability since 2013, after major losses between 2007 and 2012)⁹. Indeed, many airports with regular services show negative results.

When it comes to discussing which direction we should take in the area of airport (and port) management, we must separate the control of air (or maritime) navigation,—which should continue to be managed centrally as a reference point, perhaps by the EU in the future—and that of airports (and ports). It need not be problematic for the formal ownership of airports to continue (initially) in the hands of the general state administration, within a framework in which contracts or management concessions are sufficiently long-lasting for continued state ownership not to distort the autonomy of their management. Decisions on how to address the management of each of the airports should be transferred to consortia comprising different levels of government, and which could incorporate private non-profit organisations. In principle, it would be desirable for local governments to have a leading role in these consortia, and given the current institutional reality of Spain, it would also be advisable to also consider inclusion of the regional administrations.

It would not make much technical or functional sense for the government to be present in these authorities. Furthermore, there would be other elements that would preserve the capacity for action and supervision at the level of central government: control of air navigation, maintenance and ownership of the installations, exercise of the regulatory powers considered opportune, and management of funds to subsidise designated airports, among others. The consortia responsible for the management of each airport could establish management contracts with managerial companies

that could be either mixed (public-private) or private. The partial privatisation of AENA makes it difficult to think, in the short term, of the complete public management of companies (we shall return to this issue later), in contrast to what may happen with ports. Although legislative, institutional, and regulatory frameworks should be the same for each airport, the specific characteristics of the managerial companies need not be identical in each and every case. It would be advisable to grant a broad degree of discretion, in this regard, to the consortia responsible for their management. The airport management company should be assigned the following functions:

- Pricing: This capacity may be limited by the supervision of competing authorities. It is worth mentioning, however, that recent international experience indicates that tariff regulation does not need to be too restrictive, even in cases where management companies are usually totally private. (e.g., Australia and the United Kingdom). On the one hand, the interaction between representatives of local or regional interests and management companies and, on the other, the possibility of establishing restrictions in the event of monopolistic pricing practices, would allow for the moderation of preventive regulation.
- Investment decisions: These should be left completely in the hands of the airport management companies. In dynamic terms, to avoid inefficiency, it should be taken into account that when the end of the management contract or the concession approaches, agreements on investments should be reached with the administration responsible for concession or contract renewal.
- Lastly, to the extent that airports are designated to receive subsidies that facilitate their operation (assimilated into what would be public service obligations), investments in these airports should be agreed between their management companies and those responsible for the administration of subsidies.

⁹ Individual airport-level financial data between 2009 and 2012 can be found in Betancor, et al. (2013).

- Decisions on landing and takeoff rights (slots): These decisions are dependent on EU regulation, although certain areas of discretion may arise in some cases. These should be left to the management companies.
- Trade policy: the promotion of services offered by the airport. In particular, relations with airline companies at the airport level. Different companies set different objectives for each airport. Each airport should be able to have a trade policy, which should respond to the objectives of the airport itself. This is a basic and inevitable point in the management of airports in the future.

As mentioned above, the regulatory authority should remain within the ambit of the general state administration, and should preferably be exercised by a separate regulatory agency. This same agency could be responsible for the management of the funds required to finance the public service obligations (PSOs) instituted with respect to those airports designated to fulfil this PSO function, when its operation is not financially self-sufficient. With regard to the provision of funds to finance deficits at airports designated as PSOs, it would be preferable for them to have budgetary control. However, it could be more feasible and operational, as is the case in Canada, to establish a nurtured fund with contributions from airports that have financial returns, albeit in a transitory manner.

In any event, overestimations of PSO designated airport financial subsidy requirements are unnecessary: AENA data for 2014 suggest that the sum of operating deficits for all the airports with negative results is around 200 million (and not all these airports are PSOs). Furthermore, the individualisation of management is likely to result in improved efficiency at lower-traffic airports, which would reduce the amount of the subsidies required.

These reform guidelines, which would promote an airport system very similar to those existing in comparable countries in the region of Spain, have been reported on several occasions, for example by Bel and Fageda (2011). The work by these authors was referred to in the report providing an evaluation and recommendations for the

Spanish economy made by the European Commission in 2012 (European Commission, 2013, p. 28). The partial privatisation of AENA in 2015 has hampered its implementation, and its potential total privatisation in the future would do so even more.

One practical option would be to segregate airports run by AENA—at the regional level if regional administration were willing—maintaining a public-private sector shared capital structure, like the one existing at the time of secession. Individual management would be implemented at the airport level, although in most regions this would not be a central issue. In this respect, it should be taken into account that, for reasons of promotion and defence of competition, obligatory segregation of the airport group could be desirable. This would be very similar to what the UK Competition Commission did in the latter part of the last decade. This commission obliged BAA, owner of the main airports in London and Scotland, to sell two of its three airports in London (Heathrow, Gatwick, and Stansted; the last two were sold), and one of its two main airports in Scotland (Glasgow and Edinburgh; the latter was sold).

Note also that the individualisation of port management would not have to face the practical difficulties that the partial privatisation of AENA (a centralised monopoly) has imposed on airport reforms, even though they are similar to airports, with the exception of details imposed by the different economic characteristics of airports and ports.

OVERVIEW

This paper has discussed the instrumental role played by the Spanish infrastructure and transport policies in the construction of national centralisation. The paper also highlights some of the consequences of this model, and a series of desirable guidelines for the future of planning, financing, and management of infrastructure in Spain. Undoubtedly, many of the specific details of the proposals put forward here are debatable and improvable. However, I consider it advisable to reiterate an important point, which

affects each and every one of the infrastructures: the need to distinguish between ownership, proper management, and regulation. Taking these distinctions into account can help to achieve a desirable goal, i.e., to make the guidelines proposed herein, a reality.

That said, these proposals (modified in their more technical details) would provide the basis for a model that would be more consistent with a plurinational conceptualisation of Spain, both in terms of symbolic elements (the nation) and the substantive elements of political power (the state).

One last point must be made. The main stumbling block to reforming the infrastructure policy following these guidelines is not technical but political-ideological. Changing the instrumental role of Spain's infrastructure implies deconstructing the pattern of Spanish national construction: forgetting the desire to create a single nation through the state and formally and institutionally accepting and recognising the plurinational reality of Spain. In my opinion, this change seems too great and transcendent for the Spanish institutions and for a majority of Spanish citizens. Therefore, the odds of its materialisation tend to zero.

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