Assetization

Turning Things into Assets in Technoscientific Capitalism

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5 High-Speed Contradictions: Spanish Railways between Economic Criticism and Political Defense

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Introduction

The last few years have seen increased attention devoted to the rise of infrastructure as an asset class as analysts have begun to comment on the changing role of the private sector in infrastructure development in the aftermath of the global financial crisis (e.g., Haughton and McManus 2012; Hildyard 2012; O'Brien and Pike 2015; O'Neill 2009). The problem of infrastructure as an asset class is typically understood as a phenomenon of capital opening new avenues for the creation and monetization of streams of revenue, or "assetization" (Birch and Muniesa, this volume). Typically, the problem of infrastructure as an asset class is studied at the level of infrastructure finance, as a transformation of the relationship between the private and the public sector, where the latter is shown to be creating new opportunities for the extraction and accumulation of profit primarily through the design of new investment vehicles (Hildyard 2012; O'Brien and Pike 2015).

The rise of private equity funds and private-public partnerships has been seen as the defining attribute of the process of conversion of infrastructure into assets. The analysis of this process is explicitly or implicitly underwritten by a shared view about the transformation of the role of the state in the provision of infrastructure. The provision of infrastructure, it is widely believed, until recently has been a case of state provision of public goods. This is a process that can be best explained by the specific properties of infrastructure, which usually requires outlays of capital that cannot be secured without state intervention.

Furthermore, the life cycle of infrastructure is typically one that makes the expected time frame of profitable returns unattractive to private capital. Recently, however, there has been an increasing presence of private

finance in infrastructure development. This is primarily seen as the result of the fiscal crisis and budgetary restrictions affecting national states, which have seen their ability to invest in infrastructure significantly reduced. The strain on national budgets does not alone explain the increased presence of the private sector in infrastructure development. This requires not only the weakening of the ability of the state to invest but also the existence of what appear to be profitable investment opportunities. The private sector has been able to successfully promote the conversion of infrastructure into a new asset class by assembling new investment vehicles that make possible the sidestepping of typical risks associated with investment into infrastructure (Hildyard 2012; O'Brien and Pike 2015).

In what follows I present the case of an infrastructural mega-project that does not conform to this story but rather defies most expectations about the contemporary conversion of infrastructure into an asset class.[1] Yet, I argue, this is fundamentally a case of the conversion of infrastructure into a profitable stream of revenue as well as one about the failures and resistances that surround it (see also Braun, this volume). Rather than simply being an outlier case in an otherwise existing trend, the project I analyze—Spanish high-speed rail (HSR)—alerts us to the possibility of a more complicated dynamic when it comes to turning infrastructure development into lucrative business opportunities. The creation of profitable investment opportunities in the field of infrastructure cannot be understood just as a case of transition from publicly provided goods to privately financed projects. Rather, it represents a process of the reconstruction of the public sector in line with market criteria and the imperatives of capital accumulation.

In order to show the ways in which HSR is embedded in the reconstruction of the contemporary railways as a profit-driven enterprise, I start with a broader description of the contemporary Spanish HSR project. From this I move on to the origins of the project and discuss the way in which the project emerges as part of a broader shift to a commercial railway, the origins of which are found in the 1980s. From discussing the origins of the project I turn to the contemporary debates that surround HSR. The dynamic of contestation and defense of HSR reveals the way in which the failure to construct HSR as a profitable asset does not actually result in a broad contestation of the market model of infrastructure provision. Within dominant discourses both the critique and defense of the HSR project represent different approaches to defending the "market order of worth" (Davies 2013, 37).

The confrontation between the proponents and critics of the project relies on the continued production of factual evidence that allows for the quantification of the results of HSR, a process that I describe as the "number wars." As an alternative to dominant discourses both in favor and against Spanish HSR, I briefly introduce the anticapitalist critique of it. This thread of contestation, although not fully autonomous since it depends on some of the factual repertoire of the dominant critical discourse, points to the way in which both the economic criticism and the political defense of HSR can be rejected by challenging the identity between the state and the public.

Alta Velocidad Española

The importance of Spanish HSR (*Alta Velocidad Española*, or AVE) among European infrastructure projects is immediately signaled by its magnitude: hailed as the most important infrastructure project in Spanish history, it has resulted in what is today the longest HSR network in Europe and the second largest globally (for recent comparative data, see European Court of Auditors 2018). Far less known than the Japanese or French precedents, it has been the priority of Spanish infrastructural development programs for almost two decades. Its origins go back to the mid-1980s when the second socialist government of Felipe González took the historic decision to construct the first HSR line on the Madrid-Seville route. Inaugurated in 1992, a year of seminal importance in the recent history of Spain, it became a key symbol of an expansive, modernizing Spain on its route to full European integration. The properties of today's network were definitively established in the 2000s, when two successive national infrastructure plans maintained the objective of connecting Madrid to all the regional capitals by HSR, thus putting Spain on track to becoming the leading European developer of HSR.

Rather than a retreat of the state from infrastructure finance, this is a project that has almost entirely relied on public funding. While defenders of the project highlight the role that European development funds have played in its development, public borrowing, at both the national and the regional level, has been the essential financial instrument of a project that has drawn in resources on an unprecedented scale (Audikana 2015; European Court of Auditors 2018). This, put briefly, means that the state has remained the key actor in assembling the resources and institutions that have made possible the development and management of HSR.

Before moving on to a more detailed discussion about the origins of the AVE, a few remarks about the structural properties of HSR are necessary. Much of the official discourse that surrounds HSR, both in Spain and at the EU level, is focused on HSR being an environmentally friendly transport infrastructure. The official Spanish discourse, at both national and regional level, also insists on the role of HSR in promoting territorial cohesion. The underlying assumption in this chapter is that both these discursive directions obscure the fundamental reality of HSR as a greenwashing instrument and as a disarticulating infrastructure. My focus here, however, is not on building the critical case against the AVE but on providing an alternative vision to dominant narratives about infrastructure as an asset class and on showing how disputes around the success or failure of HSR as a profitable infrastructure reveal the need for a continuous production and reproduction of the ideological foundations of the project of a commercial railway. These debates show us the deeper ideological conversions required for the successful transformation of an infrastructure into an asset class.

HSR is, as a transport infrastructure system, a key element in the organization of territory. The "spatial order" of HSR favors central urban nodes and end destinations, at the expense of intermediate regions (Ureña 2012). The underbelly of the discourse of cohesion, at a national or European level, is the widespread experience of disconnection that is cosubstantial to the development of HSR. For Spain, a country which from the 1950s onward experienced an accelerated growth of the urban regions, with the 1960s and 1970s processes of concentration in metropolitan areas, and the more recent dynamics of peri-urbanization of the decades of the 1980s and 1990s (Ureña 2012, 79), this has meant that HSR inserted itself into a rather straightforward dynamic: between 1991 and 2007 "the part of Spain that was growing did so progressively and the Spain that was in decline accentuated its regression" (Ureña 2012, 64). Despite the efforts of proponents of HSR to prove the potential benefits of HSR in terms of the economic growth of smaller municipalities on the network, the bulk of the evidence is against this belief, increasingly seen as an HSR myth. Regional disparities are even more striking in the case of Spain, where the radial network of HSR and the strengthening of Madrid as central node lead to significant inequalities in the distribution of benefits within the network.

The number wars for and against HSR often reach significant levels of seeming methodological sophistication, although it is becoming increasingly

apparent that proponents of HSR need to turn to different legitimation grounds as critics seem to be gaining the upper hand. The disputes often cloud the basic realities of HSR, which are much better expressed and captured by the daily experience of users having to turn to travel by bus as conventional rail services get canceled, or by figures that leave little room for doubt. Conventional rail makes it possible to have stations every 15 to 30 km; the technological properties of HSR typically require stations to be separated by distances over 150 to 200 km. Straightforward evidence of the so-called "tunnel effect" of HSR is perhaps better explained by the images of desertification that those negatively affected by the development of the AVE invoke. Where academics and experts see tunnels connecting end points, those who confront the experience of the AVE from behind the fences separating the expensive infrastructure speak of deserts. Nonetheless, an ethnographic turn to the number wars can enhance our understanding of the AVE as a historically specific configuration. If the meaning of the most ambitious infrastructural development program in the history of Spain is certainly not exhausted in winning the number wars, understanding how to read them is a key element in revealing alternatives to the existing order.

Origins of the AVE

Approved in 1986, the first HSR line in Spain, Madrid-Seville, was hailed as a project that would finally halt the trajectory of decline that had characterized the national railways during the previous decades. Briefly, the history of railways during Francoism was one of progressive marginalization. The first two decades of the Francoist railways were marked by the legacy of the civil war. The physical infrastructure, heavily damaged and already antiquated, was overseen by a complex bureaucratic hierarchy and maintained by what was considered an oversized workforce. Beginning in the 1960s, the railways were targeted by a series of reforms that were primarily aimed at modernizing the infrastructure and the rolling stock. The modernization programs already addressed the management of the railways as well, and the reduction of the workforce became a priority. While important transformations were carried out during the 1960s and the early 1970s, these did not succeed in containing the overall direction of decline. This was manifested in two simultaneous trends: the rising deficit of the national railway company and a diminishing market quota for railway transport (Muñoz

Rubio 1995). During the first years of the democratic period RENFE, the national railway company, became a powerful symbol of the legacy of Francoism and the inefficiency of public management. It was trapped in the contradictions generated by, on the one hand, its importance as a key public company, and on the other hand, the increasing marginality of rail as a mode of transportation. The massive deficits that the company ran up came to stand in as shorthand for both, as the railways became widely seen as an inefficient, antiquated institution, an exponent of the old regime, and the bastion of a privileged workforce (Comín et al. 1998; Muñoz Rubio 1995).

The first years of post-Francoism saw the development of sectorial plans that aimed to modernize the railways. The first post-Francoist national railway plan, the PGF (*Plan General Ferroviario-General Railway Plan*), developed under the transitional government of UCD (*Unión de Centro Democrático-Union of the Democratic Centre*), explicitly addressed this reality and proposed a massive investment plan that would aim to correct chronic underinvestment in the railways, modernize the infrastructure, and expand the workforce, with the goal of providing a reliable service that would restore the railways to their former glory. It is difficult to decide, retrospectively, whether this first investment plan was a well-crafted diversion that would forestall the possibility of unrest in what was at the time the largest public company, or whether it represented the temporary victory of a faction of railway management and public administrators that still believed in the possibility of restoring conventional rail to its former centrality. It is certain that this plan echoed the concerns that emerged from the oil crisis, which had briefly managed to open a crack in the ideological hegemony of highway transport, if it never significantly altered its centrality in infrastructure policy. What can be known from secondary sources is that this short-lived post-Francoist modernization plan was enthusiastically embraced at the level of the company. Its abandonment marked the opening of a radical shift in railway policy (for a broader discussion, see Buier 2016).

The decision to abandon the PGF was taken by the first socialist government of the democratic years and in its aftermath a commission for the study of the situation of the railways was established. Commonly known as the Roa Commission, because of its president, Carlos Roa, its work sealed the death of the PGF as railway policy, establishing deficit control and profitability as the objectives of RENFE (*Red Nacional de los Ferrocarriles Españoles*). The early work of the Roa Commission was instrumental in

establishing a shift in how the deficit of the company was viewed. If previously the deficit was seen as economic in origin, with underinvestment as a primary cause, a new consensus was put in place in the 1980s, as arguments about the managerial origin of the deficit gained weight. Company reorganization thus became essential to the pursuit of economic profitability. This is how Gonzalo Martín Baranda, socialist railway manager and author of an autobiography, remembers the period: "In order to close lines the cost of the train for the citizens had to be exposed to public opinion. This generated in the people an animosity against the *ferroviario* that was lived through with anger in RENFE" (2011, 68).

During the first socialist government the biggest closure of railway lines took place. The 1980s also resulted in a drastic reduction of the workforce, as a new philosophy of human resource management was put in place. In the words of Gonzalo Martín Baranda:

> It was that team, the first one that estimated and compared the costs of accidents, pollution, the time lost between the highway and the railway. I usually give a phrase by Paracelsus which says: "The only things known are those that can be counted and measured." (Martín Baranda 2011, 71)

The computation of social costs and the task of rationalizing management were enthusiastically pursued and aided the objective of revealing the way in which the previous generations of managers had sidestepped the objectives of economic profitability. The entire architecture of the company had to be changed in order to reflect and aid the public company in the effort to emulate the successful recipes of the private sector. The autonomy of the company, a tenet of promarket policies and a long-standing contentious issue for the railways, became central to the dominant managerial vision of the 1980s and found a strong continuity in the presidency of Mercè Sala, the first woman to be the president of the company, also a socialist appointee. Internal reorganization on the basis of private sector imperatives was one route toward achieving a competitive railway.

The origins of the AVE are firmly rooted in this context. Technological modernization was the twin process of internal reorganization. If internal reorganization would secure the closing of the gap between the railway company and other actors in the broader entrepreneurial landscape, technological modernization was the route to modal specialization, or the niche in which it was believed railways could compete with alternative means of transport. The AVE was born in a context of intense debates about the

competitive specialization of the railways. Effectively, the demise of the railways as a hegemonic mode of transport found its definitive legal expression in the second half of the 1980s. With the LOTT (*Ley de Ordenación del Transporte Terrestre*), it was finally established that the paradigm of the railways as a privileged transportation monopoly should be abandoned in favor of a transport market where each mode of transport specialized according to its competitive advantages. At the time it was firmly believed that HSR long-distance passenger services would prove competitive in relation to air transportation.

This was also the time when the first efforts to separate the balance sheets for railway operations and infrastructure were made. European policy of railway liberalization relies on vertical unbundling which initially took the form of the separation of the financial results of infrastructure management and service provision. However, the first efforts to go in this direction occurred before significant transformations in transport policy at the EU level and are tied to the early days of the AVE.

If the major early investments required by the development of HSR were the target of some criticism, the success of the Madrid-Seville line managed to support the idea that under well-managed conditions HSR operations could be profitable. In the context of the changes in EU transportation policy in the 1990s, the dynamics set in motion already in the 1980s in Spain could become firmly established. The demands of restructuring inscribed into the European legislation are aimed at separating profitable services from the so-called public services which can be supported through public subsidies. Yet, RENFE and its subsequent divisions never managed to meet the deficit targets set at the national and European level. Repeated write-offs of debt, company restructuring, and various forms of financial engineering have been mobilized throughout the years in an attempt to control the deficit or produce the appearance of a company registering profits. The development of the AVE in particular was a challenge in this respect, given it required the concentration of resources on an unprecedented scale.

The AVE as an Object of Debate

Thirty years later, the AVE has been firmly established in the converging infrastructure policy of the two main Spanish parties, PP (*Partido Popular*) and PSOE (*Partido Socialista Obrero Español*). Nor was the development of HSR significantly affected by the unfolding financial crisis. At the same

time, though, criticism of the AVE has gained momentum and the defense of the project has become ever more entrenched in political debates about territorial cohesion and solidarity. The most visible criticism is an economic one. This sees the entire project as an irrational squandering of resources with the promise of unproven returns. A salient incarnation of this line of opposition can be found in the cost-benefit analysis (CBA) of the AVE. In recent years, there has been a multiplication of studies that look at Spanish HSR through this lens (Albalate and Bel 2012, 2011; Bel 2007, 2010a, 2012; De Rus and Nombela 2007; De Rus and Roman 2006; Mendez et al. 2009). Taken up primarily by (transport) economists, it typically involves the analysis of questions of profitability, demand, regional economic impact, and environmental benefits of HSR.

If the proponents of this type of analysis usually like to maintain the appearance of a balanced tone, highlighting that under very special circumstances HSR might prove to be a justifiable investment, the practical conclusions most of the time lead to an unambiguous rejection of this infrastructure. The special conditions that HSR must meet are primarily related to estimated demand on a potential new line and expected returns on operation. This, the argument usually goes, only makes HSR worthwhile in the situation where it meets the function of alleviating congestion on corridors linking densely populated metropolitan areas. The verdict is out on this, we are told, with HSR so far only proving profitable in two cases: the Tokyo-Osaka line and the Paris-Lyon one. No other HSR project to date has proven economically profitable. This is backed up by evidence that shows that far from being able to recover the cost of investment in the foreseeable future, the AVE also generates losses at the operating level.

Regional economic development is an idea well entrenched in the repertoire of the defenders of the AVE. The pro-HSR lobby on the regional level has essentially relied on the argument that it brings prosperity in the construction phase as well as in the operational one, by integrating towns into the most advanced transport network in Europe. To be left outside the network consequently became a symbol of being cut off not only from prosperity but from claims to Europeanness itself. CBA advocates, however, are profoundly skeptical of this argument too. The counterargument is convincing, as critics point out that there is no conclusive evidence about the growth of smaller towns following the arrival of the AVE. Even in the cases where growth has been observed, there is not sufficient evidence to

attribute it to the AVE. Finally, according to CBA, the environmental record is also much more complicated than defenders would have us believe. If the AVE is clearly more environmentally friendly than air transport, its relative position in relation to transportation by bus and car is not clear. Even the latter, with a certain level of occupancy, might prove to be more energy efficient. In relationship to the environmental record, CBA usually highlights that efficiency calculations for the environmental impact of HSR do not take into account the major impact of building the new infrastructure, focusing simply on infrastructure in use.

The Spanish proponents of CBA bring to the problem of financing public works and infrastructure a range of calculative techniques which they reify as a fixed method for comparing costs to benefits. CBA, it is believed, can serve as a tool for disciplining a political process that is fundamentally irrational. Unsurprisingly, its proponents present it as offering an unfailing standard of rationality to the problem of state funded development. This line of critique of the development of the AVE presents itself in opposition to the dominant logic driving defenders of the project. However, upon closer scrutiny it is revealed that the advocates of CBA represent simply one incarnation of a form of "militant quantification" (Porter 1995, 187) grounded in the idea of economic estimation as neutral.

As Theodore Porter (1995) has shown, cost-benefit analysis became a "respectable economic specialty" in the United States in the 1950s. But what his analysis reveals is that the earlier history of standardization of CBA, intimately tied to the politics of quantification surrounding large public works, is far from a fixed method with uncontroversial application (see also Porter 1992). Proponents of CBA present it as a tool of universal validity, although it is better described as a provisional set of techniques for monetary valuation. These techniques represent a particular and historically specific answer to the question of what constitutes a benefit and what constitutes a cost. Proponents of CBA present defenders of the AVE as falling outside the realm of rational economic calculation. But behind this surface appearance of the conflict what we can see is the actually existing diversity of cost-benefit practices. Although governmental rhetoric is sometimes clad in nationalist overtones defending unquantifiable benefits, in practice the drivers of the project rely on their own preferred measures for quantification and valuation. This means that extensive use is made of quantifying intangible benefits and forever expanding the reach of

monetary calculation to indirect benefits. Official planning documents and administrative practice favor the monetary expression of time savings. The official line of defense is also grounded in the relentless search to measure indirect benefits derived from the development of HSR, from job creation to increases in property prices and incentives for investment.

Where CBA proponents see a conflict between economic and political logic, between the rational expression of economic calculation and the irrationality of easily corrupted political planning, what is actually at work is the ongoing conflict between different ways of extending the realm of calculation and subordinating planning to the needs of the market. The main difference between those who employ CBA as a tool to oppose investment into HSR and those who defend investment into it is not given by different allegiances to the market. Rather, the difference resides in competing visions regarding the concrete workings of economic estimation. The use of CBA by its Spanish proponents is fully consistent with the analysis by Porter (1995). This is a paradigmatic case of the search for mechanical objectivity, or the attempt to establish a decision-making routine that, "once set in motion by appropriate value judgments on the part of those politically responsible and accountable, would—like the universe of the deists—run its course without further interference from the top" (Porter 1995, 189). CBA remains a planning tool firmly entrenched in the terrain of anti-democratic expert rule in the service of markets.

It is not surprising that proponents of CBA can represent support for the AVE as following a logic of political, rather than economic planning. During the Aznar and Zapatero governments the development of HSR has been inscribed and presented as an instrument of territorial cohesion and as a political choice. Public inaugurations of new lines have become a ritual display of regional development and European integration, as politicians across party lines claim patronage. Words such as the ones heard early on at the inauguration of an HSR line in Andalucía have been firmly settled as the common tropes of the festive inaugurations: Zapatero praised the development of Andalucía during the last three decades of "freedom and democracy." The region is, for the prime minister, a region that is "modern, transforming and growing at a pace above the Spanish average. It is firmly and decisively walking the path of full integration to Europe."[2]

Illustrative of both the convergence and the battle for symbolic patronage are incidents such as the fact that the absence of an important socialist

official from the inauguration of a line can appear as sectarian and divisive. During the 2015 electoral campaign, the failure of prime minister Mariano Rajoy to invite his predecessor Zapatero to the official opening of a line begun during the latter's mandate could be seen as "the end of a tradition."[3]

During my fieldwork I have heard many times a certain form of subtracting oneself from an evaluation of HSR. Its generic representation would be: "I cannot tell you if the AVE is good or bad, this is a question of political will. The government must decide if they want to construct a new line or not, but this cannot be decided in economic terms, it cannot be formulated as an economic question." Here, then, was the same logic that animated the most radical critics of the project. "The railway deficit is a problem that cannot be solved as an economic problem, it has been made into one through political will," Daniel, an engine driver, had told me. "It should not be set out as an economic problem." "If you look at this as an economic problem it does not make sense. But it cannot be decided like this. It is a question to be decided at the governmental level, it must be decided whether this new line is wanted or not," Miguel, a SEMAF[4] unionist, had argued. But in his argument there was more than evasiveness and an encroaching understanding that the unfathomable investment figures for the AVE had started backfiring with talk of indebtedness. His argument echoed a managerial obsession that has haunted RENFE for decades.

In the long history of the disputes about the question of the autonomy of the public company, freedom from governmental intervention has implied several things. Prominently it has been used to highlight that such autonomy could allow for a rational management of economic resources, and that this way the functioning of the railways could be set firmly on a commercial basis. But the corollary of the argument has also been one that aimed to free the company from the investment decisions proper. RENFE would act, of course, as a modern company in the pursuit of commercial objectives, but it should not be an administration with the power to decide what lines should be built. This responsibility should belong to the government.

Still, upon closer scrutiny the so-called political defense of the AVE is revealed as firmly anchored in a broader commitment to quantification. In addition to the range of calculative techniques designed to maximize the monetary benefits of the project, the faith of HSR has also been intimately connected to the challenge of containing the financial deficit resulting

from its development. Before I look at this in more detail, I discuss a form of opposition that aims to challenge the order of worth of the market.

Challenging the Separation of the Economic and the Political

CGT, *Confederación General del Trabajo*, is the confederation that represents the majoritarian sector of Spanish anarcho-syndicalism. The railway section of CGT is among the strongest in the confederation, and the 2015 elections, despite a frontal attack against the union aimed at reducing its representation, secured the presence of CGT in the works' council of both RENFE and ADIF (*Administrador de Infraestructuras Ferroviarias*, the Spanish railway infrastructure manager), with two members in each.

In the railway sector, CGT pushes for an alternative "public and social railway" (*ferrocarril público y social*). While the most recent articulation of the meaning of the proposal is found in a 2012 document, systematic treatments of this position could already be found in 2001 when the union published what they themselves consider to be the most complete document devoted to the railways.[5] Put succinctly, the CGT alternative can be summed up in ten demands, which, in turn, can be summarized as follows: the railways must continue to be a public service, placed above economic criteria favoring the interest of the few. The railways must be maintained as public property. Investments in railways must prioritize conventional rail, and safety must be guaranteed above all other criteria. The railway system must maintain the concept of integrated planning and services. The accounting criteria must take into consideration the savings in external costs. Users must benefit from these savings in the form of adequate service provision. Accessible and subsidized tariffs must support the development of railway service. Railway transportation must be promoted as a priority transportation service. And, finally, a common employment framework across the sector is needed in order to guarantee work conditions as well as safety, both in terms of work safety and transportation safety.

Flipping through CGT leaflets immediately alerts you to a story told differently. As opposed to the timid recuperation of state ownership that CCOO and UGT (the two majority union confederations) sketch, where the state-owned railway is at best opposed to the private one, the brief historical sketch that the CGT promotes for general audiences speaks of the cyclical history of the railways. Twentieth century railway history, we are told, is a

history of oscillation between public and private ownership, where liberalization, privatization, and (re)nationalization represent different moments in processes of capital accumulation. There are phenomena that cut across the public/private divide, it is argued. The discourse of the inefficiency of public management is one of them; the other is the constant issue of the railway deficit, an ever-present pressuring instrument. The capitulation of railway management to economistic criteria occurs in both phases, with the state implementing policies that are designed to benefit capital and the private accumulation of profit. So while defending the public railway, CGT appears to qualify the history of public ownership as state ownership.

The case against the AVE that CGT builds can only be understood as an extension of the broader vision of the railway that the union promotes. The AVE is, in opposition to the public and social railway, an elite railway, built for the benefit of the few at the cost of the many. Subordinated to a model of territorial development that the union rejects, the AVE appears as an element in a broader infrastructural policy that has placed profit, at all costs, ahead of sustainability, broadly understood. One meaningful point of friction between the critique of the AVE as an extension of the defense of the public and social railway and the need to engage with the hegemonic framework is the union's reliance on the data generated by CBA. Although CGT is a staunch defender of a railway model that is placed above strict criteria of profitability, their daily work requires an engagement with hegemonic discourses. This, in practice, has meant that CGT has relied on the type of data provided by CBA to prove that the AVE represents, from the economic point of view, a failed model. The union's argumentative strategy oscillates between a double-edged critique with clear priorities and the ambiguities of resorting to the factual repertoire of liberal economics in order to defend a nonliberal railway model (for details see Buier 2016).

Superficial Contradictions and Ideological Convergence

Here we are then, with thirty years of AVE, facing a situation that appears rather paradoxical. The strongest line of critique of the AVE, the economic one, emphasizes the political criteria in infrastructure policy. A more reserved and apparently neutral positioning toward the AVE, such as in the case of some of the SEMAF unionists I interviewed, highlights the same divide between the political and the economic, but delegates decision to the

political realm (echoing some of the arguments of 1980s New Public Management). The anticapitalist critique of the AVE, as seen in the discussion about CGT, also operates with the same political and economic distinction, but stresses the dominance of the economic over the political. On the other side, the defense of the AVE has come to increasingly be formulated in terms of territorial cohesion and regional solidarity. These arguments are advanced through a form of claim-making according to which the decision to build this new infrastructure cannot be decided simply on the basis of a certain type of economic evidence. At least on the surface, then, it would appear that a government fiercely committed to a politics of austerity and privatization is defending a certain sector from the encroachment of economic criteria. In the following section I look more closely at this apparent contradiction.

To accept the representation of the main arguments for and against the AVE as a clash between economic and political rationalities is erroneous. But so is the conclusion that opponents of the AVE have carried their arguments to similar conclusions. The way I reconstruct the arguments between defenders and opponents of the AVE is first of all meant to highlight the shared market orientation between the governmental defense of HSR and opposition to it as reflected in CBA. Differences between the two begin to emerge once the question of the relationship between the market and the government is articulated. As seen, critics of HSR who resort to CBA oppose the logic of the market to what they see as the centralizing and centralized planning at the level of the national government. The form of the argument is that of a "preference for governmental agnosticism as a form of liberal neutrality" (Davies and McGoey 2012, 77), which is why CBA does not consider itself prescriptive but merely claims to provide the empirical data for policy-makers. However, substantively, CBA is the empirical and methodological repertoire of a view that would fully entrust transport planning to the market.

In opposition to this, the defense of the AVE has taken the appearance of an argument for limiting the reach of the market. This, again, is misleading. When placed in their broader context, the arguments about territorial cohesion and solidarity reveal their meaning not as against the ethos of the market, but rather as a different defense of the "order of worth of the market" (Davies 2013). This is a view that ascribes a different role to the state, which maintains the role of organizing on the national scale the material basis for the successful operation of markets. In opposition to this, arguments such

as those favored by CGT maintain that the railways should not be subjected simply to market-based forms of valuation. It is indeed complicated to always separate this uncompromised position from the tactical repertoire and the factual evidence it employs. CGT, just like the environmentalist critics of HSR, often relies on "social cost" calculations or the calculation of "externalities." This is evidence that is summoned in order to prove not only that the railways could prove competitive but also that the only reasons other modes of transport appear as competitive is because the hidden costs associated with them are not taken into account. And this repertoire of factual evidence remains the result of extending market calculations to areas that were previously considered nonmarket. But if this repertoire of calculation is summoned, this remains subordinated to the argument that profit seeking should not be the foundation on which transport planning and territorial development occur. And this is most clearly articulated in not only the rejection of HSR but in the defense of conventional rail.

Competing Calculative Devices

The reconstruction of the arguments between defenders and opponents of HSR could suggest that in effect the competition occurs on the terrain of disputing the limits of governmental intervention in markets and in particular transportation markets. But the actual unfolding of the conflict does not merely oppose different promarket visions, it involves the mobilization of an entire range of rival calculative devices. While it might appear that the EU budgetary cutbacks and fiscal consolidation are recent enemies of the development of HSR, to exceptionalize the current pressures is misleading. In effect, the railways and HSR development have been facing fiscal policy constraints throughout their entire existence in the post-Francoist period. The implementation of HSR occurred around the time of Spain's accession to the EC in 1986. The plans for the massive extension of the network were developed as Spain was preparing for the adoption of the euro. Finally, during the recent crisis HSR has remained a privileged infrastructure project. These are also periods during which the question of public deficit management was paramount to fiscal policy in Spain. This is not to say that during the periods considered to be economic crises the overall rhythm of infrastructure development was not affected, since in effect the commercialization agenda of PSOE during the 1980s and the resulting consequences for

the railway company were put in place in the early 1980s, during a period of economic crisis. Similarly, after the inauguration of the Madrid-Seville line the pace of investment in HSR slowed down. The more important point is that the massive concentrations of capital required by the development of the AVE and the problem of meeting them in periods of crisis is not a recent condition but rather a problem with an intricate history.

A commonly heard argument is that the development of HSR has been made possible by Spain's access to European funds. There is an important element of truth in this, as Spain has indeed been a privileged beneficiary of European development funds. But two simple facts will immediately alert us to the insufficiency of the observation. First, in practice, EU funds almost never exceed 25 percent of the total cost of any individual HSR project; second, the development of the AVE has not lost steam as Spain's access to EU funds grew more restricted (for details, see Audikana 2015). With this observation in mind it is easier then to turn our attention to that part of the funding structure which exists in the shadow of EU funds.

As visible in the structure of liberalization on the European level, the provision of railway services today embodies a dual relationship with regard to the question of monopolies. With regard to infrastructure provision, it is still widely believed that the best form to organize infrastructure provision is on a monopolistic basis. Service provision, however, should be reorganized in line with the objective of creating a single European market. However, EU policy impacts the actual development of infrastructure through several channels. An already mentioned one is the availability of EU funding. Importantly, though, on a national level, the question of HSR funding is tied to the broader question of the public deficit.

Throughout the post-Francoist history of the railways the question of the deficit of the railway companies has been ever present. This has also been essential to the way the problem of managerial autonomy of RENFE has been addressed. It has also been key to articulating the commercial orientation of railway services. The funding of HSR is likewise an essential part of this, as a key concern has been how to devise funding instruments that would not impact the national public debt. This has generated, broadly speaking, two types of solutions: (1) the extensive recourse to extra-budgetary funding and (2) the attempt to attract private capital through public-private partnerships. The recourse to extra-budgetary financing has involved the setting up of public agencies which would allow for debt

financed development to appear on the balance sheets of companies without counting toward the national public debt. The establishment of GIF (*Gestor de Infraestructuras Ferroviarias*—Railway Infrastructure Manager) in 1997 was a crucial development in this respect. However, although this has been a provisional solution, it has constantly fired back as the problem of indebtedness of the companies themselves. To this should also be added the rising share of subnational level financing.

The policy of vertical unbundling that is the foundation of the liberalization model also has its origins in the problem of deficit management. In the 1990s when this became officially inscribed in the EU agenda, it was articulated as a response to the problem of the massive indebtedness of railway companies across Europe. As a matter of fact, this priority can be clearly seen in the fact that early EU policy required the separation of balance sheets, with the purpose of separating investment into infrastructure from service provision. In Spain the solution pursued was that of fully separating the companies, which is how RENFE Operadora and ADIF were formed, but other national companies resorted to maintaining the separation on the level of independent accounting. The objective of this separation was the already earlier formulated ambition of turning railway service provision into a commercially profitable activity. This is not a straightforward policy for the railways, however, since rail services are actually a bundle that includes goods that it is believed should be regulated and provided by the market, and those which are still considered as exceptions to the market-logic.

The space available in this chapter does not provide room for a broader discussion on the long history of this problem—namely, the malleable border between services that some believe should be entrusted to the market and those which are considered, for various reasons, outside of it. But one essential difference is that the separation between these services corresponds to the type of financing flexibility available on the governmental as well as on the company level. Those services that are believed necessary but cannot be reliably entrusted to the market are eligible for public subsidies. Such is the case of suburban rail and regional passenger transport, both of which are seen as providing an essential public service with social benefits. High-speed rail, initially exclusively a long-distance passenger service, was consequently not eligible for subsidies according to EU regulations. The underlying logic is that the operation of long-distance HSR services should be financed by the users. However, HSR in Spain has not managed to cover

the cost of its operations through the model of the user-financed service. So, in addition to the massive scale of investments absorbed in the construction phase, the AVE has fallen short of its commercial objectives in the operational phase. With the estimated number of users lower for every new line opening, it is difficult to believe that this could change in any way in the foreseeable future.

It becomes clear, then, that the dispute between defenders and opponents of the AVE is not actually restricted to what critics would call the conflict between political planning and economic rationality. That is merely the ideological articulation of a vision of planning that aims to hide its own normative basis. Once we analyze this conflict, it is revealed that this has enlisted not only different promarket economic visions but also a range of rival techniques of calculation. Upholding the narrative of modernization through HSR requires the constant production of factual evidence that allows the integration of these contradictions into the teleology of progress.

Conclusion

This brief survey of the origins and development of the AVE and the main arguments that surround its defense and its criticism points us toward the challenges of converting an infrastructure into an asset (Birch and Muniesa, this volume). Spanish HSR shows the ideological and institutional prerequisites of converting a previously public service into a stream of revenue. However, the dominant direction in the analysis of infrastructure as an asset does not confirm the model of transition from state owned public goods to a private model of investment. The problem of infrastructure as an asset extends beyond the question of finance and provision and into the question of how an infrastructure enters the logic of market calculation.

What the debates surrounding Spanish HSR reveal is that it is not only the success of converting infrastructure into an asset that can provide an opportunity for extending the realm of market calculation. Both the critics and the defenders of AVE, in light of its perceived failures, converge around the belief that infrastructure should be either an outgrowth of market calculation or a foundational element in the construction of the market order. The problem of HSR as an asset can only be understood as a derivative of an effort to extend the realm of market calculation. Where the failure of turning HSR into a profitable asset becomes obvious, economic rationality

becomes repoliticized in a manner that remains congruent with the project of marketization. To fully understand the challenges of turning HSR into an asset, it becomes necessary to surpass those views that would oppose the state and the market and derivatively treat private actors as privileged agents of assetization.

Notes

1. The completion of this chapter extends across my stay at two different institutions. The initial research was carried out as part of my research for a doctoral dissertation completed at the Central European University and was made possible by the support I received through a Wenner-Gren Dissertation Fieldwork Grant. The text was completed at the Max Planck Institute for Social Anthropology, where I have expanded my research on high-speed rail as a member of the *Financialisation* research group. Details have been modified in order to ensure anonymity of the interviewees.

2. Zapatero dice que los AVE refuerzan la cohesión territorial al inaugurar la línea Córdoba-Antequera, *El País*, 17 December 2006, http://elpais.com/diario/2006/12/17/andalucia/1166311327_850215.html.

3. Rajoy excluye a Zapatero de la inauguración del AVE a León, *El Español*, 29 September 2015, http://www.elespanol.com/espana/20150929/67743264_0.html.

4. The *Sindicato Español de Maquinistas y Ayudantes Ferroviarios* (SEMAF) is the Spanish Engine Drivers' Union and currently represents the majority of the train drivers.

5. SFF-CGT. 2001. Nuestro modelo de ferrocarril. Una alternativa de transporte social y seguro.

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