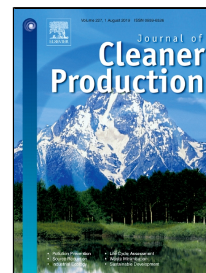


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**INTEGRATED TRANSPORT PLANNING: THE ‘REHABILITATION’ OF A
CONTESTED CONCEPT IN UK BUS REFORMS.**

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INTEGRATED TRANSPORT PLANNING: THE 'REHABILITATION' OF A CONTESTED CONCEPT IN GREAT BRITAIN BUS REFORMS.

Abstract

The paper is part of what we can call "*post New Public Management (NPM) studies*" which denounce that the policies of austerity and competition have made local public transport fragmented and less attractive for customers. These studies that indicate the need for greater coordination within this sector as a condition of social and environmental, and not only financial, sustainability are increasingly numerous. We show how the public transport legislative evolution in Great Britain has aimed towards the assurance of more coordination into a fragmented sector. However in its last stage, the Bus Services Act 2017, we find not only more incentives to increase coordination but the 'rehabilitation' of a contested concept such as the integrated transport planning. Specifically, we show that the 'rehabilitation' of the integrated transport planning did not happen immediately but gradually over the years through several reforms. During this transition, both negative and positive aspects, and the tensions between competitive mechanisms and coordination mechanisms have lived together. This tension demonstrates the challenge of finding an appropriate role for public and private actors to make public transport fully sustainable. The case of Great Britain shows that transport sustainability must be found in a mix of mechanisms: not only market and partnership but also hierarchical mechanisms, such as an integrated and coordinated planning.

Keywords: Integrated Planning, Derugulation, Governmental Policies, Sustainability, New Public Management.

1. Introduction

Ensuring transport sustainability is a priority for governments around the world. However, their actual ability to convince passengers to reduce the use of private cars in favor of more sustainable ways, such as public transport, depends above all on how the sector is governed, on which levers of governance are used and how. The theory (Rhodes, 1997) emphasizes how sustainability depends on the ability to find the right mix between the levers that govern public service efficiency and effectiveness. In this perspective transport can be defined "sustainable" when it expresses in a balanced way the simultaneous presence of market, partnership and hierarchical mechanisms (Sorensen and Gudmundsson, 2010; Sorensen and Longva, 2011). As we know, neoliberal and NPM thinkers have considered hierarchical mechanisms, such as, integrated transport planning,

as ineffective practices. However, following the disappointing results of deregulation, these mechanisms have been gradually ‘rehabilitated’.

As is often the case, concepts change their meaning over time and this is exactly what happened in the field of public transport. Specifically the idea of integrated transport planning has undergone a change in perception from negative to positive. After being negatively identified with the idea of public monopoly for decades and described as an utopian and ineffective practice (Hibbs, 2000) it has been recently ‘rehabilitated’ in the post NPM studies (Sorensen and Longva, 2011) following the underwhelming results of deregulation (Sclar, 2000; Gomez Lobo, 2007).

Considered not an effective solution to the problem of destructive competition but as a way to destroy competition (Jakee and Allen, 1998), integrated transport planning regains value not only in theory (O’Sullivan and Patel, 2004; Hull, 2005, 2009) but also in practice (Thompson et al., 2006; Barter, 2008; Mees, 2010).

Paradoxically, the value of an integrated and coordinated transport plan is not based on the experience of the Verkehrsverbund in Germany, Austria, and Switzerland (Buehler and Pucher, 2011; Petersen, 2016; Buehler et al., 2018) but from the negative experience of the Great Britain, which through deregulation, has disintegrated the transport network in metropolitan areas (Savage, 1993; Nera, 1996).

We found this process of rebalancing the right mix of governance levers well demonstrated by the evidence of Great Britain case which shows in a significant way how much public transport needs the contribution of the public authorities to be sustainable.

This study contributes to the existing literature highlighting the above gradual governance process. This process is in accordance with the theory that suggests that to be sustainable a public service (like public transport) needs a mix of mechanism (“it’s the mix that matters” - Rhodes, 1997).

In fact, reforms that were implemented under the Transport Act of 1985 following deregulation were, in fact, aimed at re-evaluating the idea of coordination and integration of the service (Transport Act, 2000; Transport Act, 2008; Bus Services Act, 2017). The same Public Transport Authorities (PTAs) responsible for this function were abolished in 1985 and reinstated in 2008. Further, it is no coincidence that they were renamed as Integrated Transport Authorities (ITA). This indicates that the government became aware that no significant service improvement could be achieved without reintroducing any form of integration (Sorensen and Longva, 2011). From a negative concept, it became positive. No longer linked to a utopian idea, integrated planning has now become a proactive concept that leads to action aimed at producing impact. It has been variously referred to in literature as ‘network planning’ (Mees, 2010), ‘multi-destination approach’ (Thompson 1977; Brown and Thompson, 2008), or ‘proactive planning with Business delivery’ (Barter, 2008) to concretely convey the idea that a sustainable transport system (Banister, 1995) is, mainly, a well publicly governed system, and not necessarily a publicly owned one (Stanley and Smith, 2013).

This article is organized as outlined below. In the next section, we summarize the theoretical arguments that support and oppose integrated transport planning as a method to solve the complex problem of mobility. Why is integrated transport planning expected to have positive (or negative) outcomes on the use of public transport services? Why is it a contested concept? Subsequently, we will use the Great Britain’s changing bus reform

process as an empirical case study to show how integrated transport planning has changed its meaning over time, as it has been ‘rehabilitated’ after being ‘discredited’ by approaches inspired by New Public Management and how, albeit with great difficulty, became part of the British political agenda, just as deregulation was in the past.

2. Integrated transport planning as a contested concept

2.1. Public transport planning as an ineffective practice

The decline of public transport planning function indisputably fits within the more general crisis of a welfare state, which has characterized Western countries since the 1980s and forced them to improve public services using the available fewer resources (Hood, 1991, 1995). Basically, free-market supporters accuse public authorities as follows: the decline in service usage due to changed external conditions favourable to private cars would not have been followed by a logical contraction/rationalization of the service by public authorities (Lave, 1991; Winston, 2000; Hibbs, 2000, 2009). The transport sector would thus suffer from unnecessary excess capacity compared to demand. Hence, the need:

- to leave more room for market mechanisms to realign demand and supply;
- to reduce the burden of public subsidies; and
- to prevent the decline in efficiency and productivity of public transport companies which, in the name of territorial and social cohesion, have been able to capture the regulators by expanding the service in unprofitable areas with low fares.

From this point of view, the first step to improve the service is to eliminate an ineffective and expensive practice: public planning of transportation services.

In the words of John Hibbs (2000):

‘The words integration and co-ordination are commonly used with no real meaning, and this is one of the reasons why transport policy has been confused, and confusing, since the 1920s (if not before)...the only rigorous meaning of the term integration lies in the development of a rational pricing system for roads and “rail roads”’. Were this to be achieved, then Ponsonby’s case, made in 1969, for co-ordination through competition, would come into its own (: 9)...top-down integration, whether of ownership or of policy, is undesirable, and, indeed, unworkable, in the sense of having anything worth having (: 23)’

With the so-called integration utopia (Lave, 1991; Winston, 2000; Hibbs, 2000), free-market supporters realistically recognize that the increase in transport service demand depends not so much on the ability of public planners to offer a high-quality coordinated and integrated service, but from external factors (i.e. high population densities, low per capita incomes) and from car restraint measures (i.e. congestion charges and road pricing measures) (Taylor et al., 2009).

Such seemingly realistic arguments, however, result in fuelling a defeatist and a somewhat distrusting behaviour by public institutions in respect of transport planning as a lever to stimulate demand in unfavourable external conditions (i.e. low-density areas) (Petersen, 2016) and to fight congestion. In other words, they fuel the idea that public investments in better quality transport systems (integrated and coordinated) have little power to influence demand, making them more sustainable.

They underpin the idea that a sustainable transport system is linked to prohibitive and dissuasive measures (Tas, 2010) and not proactive mechanisms aimed at creating coordinated and integrated systems. This perspective lends more value to prohibitions than active involvement of public authorities as a means to solve mobility problems. However, emphasizing only the negative aspects would lead to neglecting the positive duties of doing more from a social and environmental perspective and not only doing better from an economic one (Malvestio, 2016), which is the core of the sustainability paradigm in public transport (Banister 2005, 2008; Holden et al., 2013; Newman and Kenworthy, 2015).

2.2. Public transport planning as a quality lever

Indisputably, external factors (Currie and Wallis, 2008; Taylor et al., 2009) have a significant impact on demand as well as car restraint measures (Tas, 2010), but this argument cannot be used instrumentally to diminish the effectiveness of good transport planning (Thompson et al., 2006). It is therefore necessary to bring into play a 'New realism' (Owens, 1985; Goodwin et al., 1991; Docherty and Shaw, 2011) as opposed to one of renunciation which, on the contrary, re-evaluates the active and not only the passive role played by public institutions to solve the complex mobility problems (Hansson, 2013).

It is not true that an active public sector role (Docherty et al., 2004; Booth and Richardson, 2011; Robert et al., 2017; Paulsson, 2018) in improving the quality of transportation services does not significantly increase the number of users (Thompson et al., 2006; Currie and Wallis, 2008; Redman et al., 2013; Mugion et al., 2018). On the contrary, it is true that the concept of an integrated transportation system is a complex one (Stenstadvold, 1996; Hine, 2000; Hull, 2009; Hrelja, 2015; McLeod et al., 2017). Hull (2005) depicts it as an eight-level ladder:

1. Physical and operational integration of public transport
2. Modal integration
3. Integration with market needs
4. Integration with social objectives
5. Integration of environmental issues in transport policy making
6. Institutional and administrative integration
7. Integration of policy sectors
8. Integration of policy measures

From this perspective, the crisis in a local public transport system should not be viewed only as an unavoidable fact caused by external circumstances but also as the outcome of the state's inability to proactively plan an integrated service capable of coping with the complexity of people's changing mobility needs (Thompson, 1977; Thompson and Matoff, 2003; O'Sullivan and Patel, 2004; Mees, 2010). The sharp decline in market share and the exponential increase in public operators' deficit is rather the consequence of abandoning demand generation efforts with a superior service concept. As a result, the local transport service is forced to downsize its strategic ambitions and retire to serving social niches, thereby identifying its essential mission. Thus, the service collapsed as a network and succumbed to the superiority of the private car. Public transport companies remained disconnected from one another and reduced to the status of permanently failing

organizations (Meyer and Zucker, 1989) in constant need of monopolistic protection and public funding to cover rising management costs. These consequences are the effect of an implementation failure of a complex concept rather than the result of regulative barriers that prevent private firms from entering the market coupled with the lack of car restraint measures. Rather, this is the effect of renouncing or failure to plan a service capable of coping with the exploding number of people's commuting routes (Thompson, 1977; Thompson and Matoff, 2003; Dodson et al., 2011; Redman et al., 2013; Mugion et al., 2018). Indeed, people's mobility needs and behaviours have changed over the years. The use of private vehicles has increased considerably – to the detriment of public transport – due to the multiplication of origins and destinations arising from localisation choices that have favoured territorial decentralisation (sprawling) over concentration (compact city) (Mees, 2010). If people's mobility choices have changed, it indicates that they can change (Goodwin et al., 1991). The local public transport service, on the other hand, stands largely unchanged. It remains essentially linked to a concept focused on CBD (Central Business District), peak-time commuting (Thompson, 1977), focusing on the most densely populated areas, but neglecting many suburban areas and new mobility needs (leisure, shopping, tourism) (Thompson and Matoff, 2003; Brown and Thompson, 2008; Mees, 2010). External factors are always important (Taylor et al., 2009), but the internal ones begin to gain relevance (Thompson and Matoff, 2003; Thompson et al., 2006; Petersen 2016; Cruz et al., 2016; Buehler et al., 2018). Quality of service (frequencies, accessibility, punctuality, reliability, stability) is gaining significance (Thompson and Brown, 2006; Mees, 2000, 2010; Barter, 2008). In other words, the idea that good service planning (i.e. integrated and coordinated) can effectively counteract unfavourable external factors is gaining empirical evidence (Thompson et al. 2006). Thus, planning a service that increases the number of users (patronage goals) (Walker, 2008) connotes building a more ambitious service network that allows users to reach, with minimal transfer cost between transportation modes, all potential destinations in the area throughout the day (Multi-destination Approach, Network Planning model, Proactive Planning with Business Delivery) (Brown and Thompson, 2008; Barter, 2008; Mees, 2000, 2010). The focus of this approach is not performance improvement of a single firm or transportation mode (*organisational effectiveness*) but that of an integrated service (*public service improvement*) (Boyne, 2003; Lonty and Gregory, 2007). The aim is to increase the value of a network, and not the value of a single firm or transportation mode. Public transport integration in this way represents the backbone of mobility. European cities like Munich or Berlin provide us with clear examples of how public transport integration can work effectively. In these cases we observe a service network, an integration of four different transportation modes like the U-Ban (underground train), the S-Bahn (suburban express train), the streetcar and the bus.

2.3. *The problem of cross-subsidization*

To realize these advantages, however, it is up to the public sector to plan this more ambitious network away from blind commitment (Hensher, 2007; Gwilliam, 2008). In this regard Barter (2008:113) posits that:

“This ambitious public sector planning has involved the creation of dedicated agencies (i.e. Verkehrsverbund) that have been empowered to coordinate the system at a metropolitan scale. The most successful cases have devoted their ability to do proactive planning to seek excellence via ambitious levels of network integration”

In fact, not all segments of the network have the same commercial value, and private operators will inevitably end up servicing the most profitable ones. Therefore, the responsibility for cross-subsidising operators of profitable and non-profitable segments is a public concern. This is a contested point because of cross-subsidies. Essentially, cross-subsidies can be viewed in two ways: positive and negative. As a positive phenomenon, cross-subsidies are a natural feature and not a defect of sectors offering network services, including the local public transport (LPT) sector. They are considered positive due to the effect they have on strengthening the attractiveness, and the value of a given territory owing to the connections made possible, without distinguishing between profitable segments and loss-making segments (Mees, 2010). In summary, by providing the network a possibility of existing, cross-subsidies create positive externalities (Mohring effect) for the environment and users (reducing congestion and total individual costs of movement, both monetary and non-monetary). Cross-subsidies are considered negative when policy-makers misuse them for reasons other than improving the service (Pickrell, 1985; Lave, 1991, Winston, 2000). This undermines the positive externalities (Mohring effect) of the network, making costs higher than benefits and rendering the idea of a network rather utopian because of obstacles that are difficult or impossible to remove (opportunism and irresponsibility of policy-makers, low professionalism of planners, resistance from users who prefer the freedom of a private car to restrictions imposed by an integrated network)(Stenstadvold, 1996; Robert et al., 2017).

Next, we analyse the case of Great Britain bus reforms to show the importance of coordination and integration to counteract the negative effects of deregulation, i.e. fragmentation.

3. The 1985 Transport Act: from inefficient public transport planning to deregulation

The 1985 Transport Act can be seen as a reaction to the inefficiency of Public Transport Organizations and to the uneffectiveness of Public Transport Authorities in the transport planning. The choice of deregulation and dismantling of the network took place mainly because the British government no longer believed that public agencies are the only organizations capable of designing an efficient and high quality integrated and coordinated transport network, nor that the integrated network itself is the solution to stop the demand decline (Godfrey and Taylor, 2018). On the contrary, the government believed that entrepreneurial initiative is the key to reduce costs and meeting the complex needs of users. On the other hand, if users positively evaluate an integrated and coordinated network service and are willing to pay for it, why should private companies not offer the service? (Hibbs, 2000). Awareness that Public Transport Authorities (PTAs) had failed to make the service more attractive through integrated plans, Great Britain

proposed the Transport Act of 1985 (excluding London, regulated by a competitive tendering regime) to privatize public companies, abolish PTAs, and completely liberalize the market (Savage, 1993). Thus, cross-subsidies between high- and low-demand lines were eliminated because they did not prove to be effective in attracting users by providing network support, but succeeded in increasing costs, as in the past. Released from this obligation, private companies could offer transport services (at lower costs and prices) only where there was demand, using the more effective logic of the most profitable lines and not that of coordinated and integrated networks;

The 1985 reforms took shape to reduce growth of service costs and the seemingly unstoppable loss of users. The stated rationale for deregulating the sector is contained in the 1984 White Paper (Hibbs, 1989; Savage 1993; White, 1995) where it recognized:

- existence of large differences in efficiency and costs between public and private companies;
- absence of opportunities given to more efficient operators to enter the market and to be put in place of the less efficient;
- failure of planning and cross-subsidy policies between profitable segments and loss-making (low demand) segments that were aimed at keeping a network alive and attractive to users, but it only increased service costs and reduced staff productivity.

Deregulation represented a strong break compared to a legislation that remained stuck to the idea, developed in the early 1930s, of public monopoly as a way to prevent destructive competition. Similar arguments are used by Jakee and Allen (1998) to criticize the inefficiencies and waste of resources produced by monopoly in local public transport services in Ireland: thanks to public monopoly, destruction of competition rather than destructive competition accelerated the decline. The 1985 Transport Act made the following radical changes (Savage, 1993; Simpson, 1996; Mackie et al., 1995; White, 1995; TAS, 2010; van de Velde and Wallis, 2013; White, 2018):

1. abolished the licensing system by guaranteeing all operators freedom of entry and exit (competition in the market) through a mere act of registration, on the condition of compliance with certain quality standards;
2. empowered bus operators to provide services in competition with each other on the lines deemed most attractive, freeing them from the obligation to provide network services to cover larger areas;
3. established a competitive tendering regime only for socially necessary services not offered by private firms (i.e. subsidies for the areas with a weak demand that private bus operators do not cover and are therefore paid by the British government);
4. provided reimbursements to companies for free services offered to specific categories of users, and fuel rebates;
5. imposed very strict rules to sanction anti-competitive behaviour in order to prevent collusion between operators, especially with regard to fares, lines, and frequency of service;
6. broke down state-owned companies into smaller entities and put them up for sale on the market, and turned municipal companies into joint-stock companies by

facilitating their privatization. In 1983, publicly owned companies covered 92% of the miles travelled and 97% of passengers carried;

7. left central power unchanged, obliging local authorities to report to the central authorities on the quality of the local LPT with respect to goals set at the national level, but deprived them of service planning power entrusted entirely to private companies.

These changes accurately reflect the programmatic points summarized by Hood (1991, 1995) to improve the performance of public services:

- splitting Public Administration (PA) into companies organized by product;
- using terms and market contract mechanisms;
- using managerial styles typical of the private sector;
- emphasizing discipline and frugality in the use of resources;
- highlighting the role of top management;
- formalizing performance measures; and
- emphasizing output control.

The aim was to make public transport more responsive to the needs of citizens seen as clients (Hood, 1995). The choice of a deregulated market regime (excluding London) instead of a public planned one, according to New Public Management (NPM) supporters, would have led to reduction in costs, increase in efficiency, productivity and innovation, reduction in subsidies and prices and, in this way, increase number of users (Hibbs, 2000). It strengthened the powers of the antitrust authorities (Office of Fair Trade and Monopolies Commissions, later replaced by the Competition Commission), preserving the strategic control of the central authorities by using a Local Transport Plan regime with targets to reduce congestion and increase the use of public transport (Sorensen, Gudmundsson, 2011).

However, by separating the strategic level, entrusted to the central government, from the tactical and operational, entrusted to private companies, this reform rendered coordination between the three levels more difficult (van de Velde, 1999; van de Velde and Wallis, 2013). In fact, the responsibility for reducing congestion was entrusted to local authorities financed for this purpose, but without powers. Tactical and operative decisions were entrusted to private providers. This reform ended up creating an imbalance between the responsibilities and powers of public authorities. It could not create a harmonious mix between the hierarchy and the market that were forced to coexist in isolation from one another, without any points of contact (NERA, 2006; Sorensen and Longva, 2011; Stanley and Smith, 2013).

4. The impact of deregulation

4.1. The sharp decline in operating costs and bus patronage

In a 1999 paper, Preston (1999:13) wrote:

‘An important question is should other countries follow the UK (or more strictly British) reforms in public transport? In terms of an exact carbon copy, the answer has to be no... In the bus industry, comprehensive tendering in London seems to have been more beneficial than deregulation outside London, although the London regime is not without its faults and should not be followed slavishly... One advantage of the reforms has been that they have helped us get a better idea of the true economics of public transport,

particularly with respect to costs and innovation. However, I am not a reluctant Austrian extolling the virtues of creative destruction. The transitional costs of such destruction may be high and not as temporary as many people think. But we do have a better idea of what might be the optimal regulatory and ownership structures in public transport industries than we did 20 years ago... If the appropriate lessons are learnt, the rest of the world may benefit too.'

Which are the appropriate lessons? Broadly, we can state that deregulation improved efficiency, but not the service quality (Savage, 1993; Mackie et al., 1995; Simpson, 1996; White, 1997; Nera, 2006; White, 2018). Excluding some situations (van de Velde and Wallis, 2013), where the increase in passengers was evident, deregulation produced, in the early stages destructive competition (Klein and Moore, 1997) and then industry concentration, higher fares and excess profits, fragmented services, and sharp decline of patronage (Nera, 1996). The initial cost savings, due to lower salaries and innovations such as minibuses, gradually vanished (White, 2018). The fragmentation of previous transport network and fare increase created a drastic decline in patronage (Savage, 1993; Simpson, 1996; Sclar, 2000; Nera, 2006). In a recent article, Preston and Almutairi (2013: 208) have fewer doubts about the deregulation results:

'It is found that outside London, bus demand declined strongly, at least up to the year 2000 and some of this reduction can be ascribed to deregulation. By contrast, in London, demand has generally been increasing. However, in both areas operating costs also declined strongly, again up to 2000, but since then there have been strong increases in costs and subsidy. Our initial finding is that there are net welfare increases both outside and inside London, but with welfare increases per capita being five times greater in London than elsewhere'.

Following Preston's suggestions for examining the situation in London and metropolitan areas to understand the effects of deregulation, we compare patronage results of a competition in the market regime, implemented in metropolitan areas, with those obtained from a competition for the market regime, implemented in London.

As Table 1 shows, patronage increased in London (+81.4%) in the period 1986–2008, while patronage had declined in metropolitan areas (– 45.8%).

Table 1
Comparison of bus patronage in London and metropolitan areas (in millions)

Periods	London	Metropolitan areas
1985-1986	1.152	2.068
1995-1996	1.205	1.292
2005-2006	1.881	1.111
2007-2008	2.090	1.121
Var. % 1986-1996	+ 4.6	- 37.5
Var. % 1986-2008	+ 81.4	- 45.8

(Mees, 2010:77)

'Before deregulation, London produced about one-third of urban bus patronage in England; now it accounts for two-thirds, despite housing only 7 million people, compared with 12 million in the six metropolitan counties. However, while only carrying a third of the passengers, the metropolitan areas consume nearly two-thirds of "concessionary fare reimbursement" – a result that appears to be due to the higher fares charged and the increasing domination of ridership by those travelling on concession tickets' (Mees, 2010: 77).

We recognize that it is difficult to ascribe the different results only to the different competitive regimes (deregulation vs competitive tendering) or to the presence/absence of a transport planning. Other factors like London's population density, total public transport supply, congestion pricing surely have played an important role in explaining these contrasting results making difficult the replication of the “integrated transport planning” formula of London elsewhere. But we cannot avoid to underline that in London the service is executed by private operators selected through competitive tendering (operational level), but is planned (tactical level) by an independent public agency (Transport for London) like the German counterpart *Verkehrsbund*, strongly focused on service impacts and outcomes (van de Velde, 1999; Brown and Thompson, 2008; Barter, 2008; Buehler et al., 2018). The integrated function of this agency is not yet adequately recognized, especially in economic literature where preoccupation with savings is greater than patronage increase (Pickrell, 1985; Lave, 1991; Winston 2000).

4.2. Market concentration, excess profits and the Bus Operator's defence

From 1985 onwards, with the previous public organizations ‘fragmented’ into small companies and sold on the market (repurchased by former public managers, in some cases) the market became gradually concentrated. The result was the development of five private giants (Go-Ahead, Arriva, First Group, Stagecoach, National Express) taking the place of the two public giants (National Bus Company and Scottish Transport Group). To date, these five companies control approximately 64.1% of the market. Lek (2010) reports that in the period 2000–2008, the so-called big five companies, listed on the stock exchange, saw a huge increase in profits compared to decline in number of passengers and fare increase. Deregulation has produced a concentrated market of five major operators. The Lek Report (Review of Bus Profitability in England, 27 July 2010), commissioned in 2010 by the Department of Transportation, shows that these five groups earn on average double profits compared to what should be expected from a competitive regime and confirms the results of a similar report in 1996 on the decline of the sector after deregulation (Nera, 1996). Also the Transport Committee (2012:13) expressed concern about the concentration of the sector, the lack of competition and the excessive profits made by the five largest groups. In general, constant attention to reach a desired profitability target has led operators to increase fares mainly in response to an increase in input costs (fuel, labour, and insurance). For instance, Nera (1996: 22) reports that an operator was willing to continue with the service only if he could get 15% margin and, in any case, not less than 8%. Due to the continuous decrease in patronage (revenues) and increase in operating costs, the only viable solution was to increase fares. The companies calculated that increasing fares generated only a minimal loss of (captive) users and, consequently, only a minimal loss of corresponding revenues (low demand elasticity compared to the price). In the TAS report (2010: 11), private companies defended themselves from the accusation of lack of competition and excessive profits by stating that, in reality, they were suffering as a result of the vicious cycle, that is, the double effect of increase in input costs and low level of labour productivity due to lower commercial speed and had no choice but to increase fares. Low commercial speed means increased costs for more personnel and more buses. Private companies claim they are not strong enough to expand the user market and have no alternative but to increase fares for captive

users. Hence, the lowering growth of the real markets but also the high growth potential of users if public authorities make the difficult choice of adopting car restraint measures (TAS, 2010: 11).

As figure 1 and figure 2 show, according to the TAS report, the most appropriate role of public institutions is to adopt car restraint measures leaving the planning function to private companies operating in the deregulated market. If public institutions follow these suggestions, a strong increase in bus and rail demand is expected.

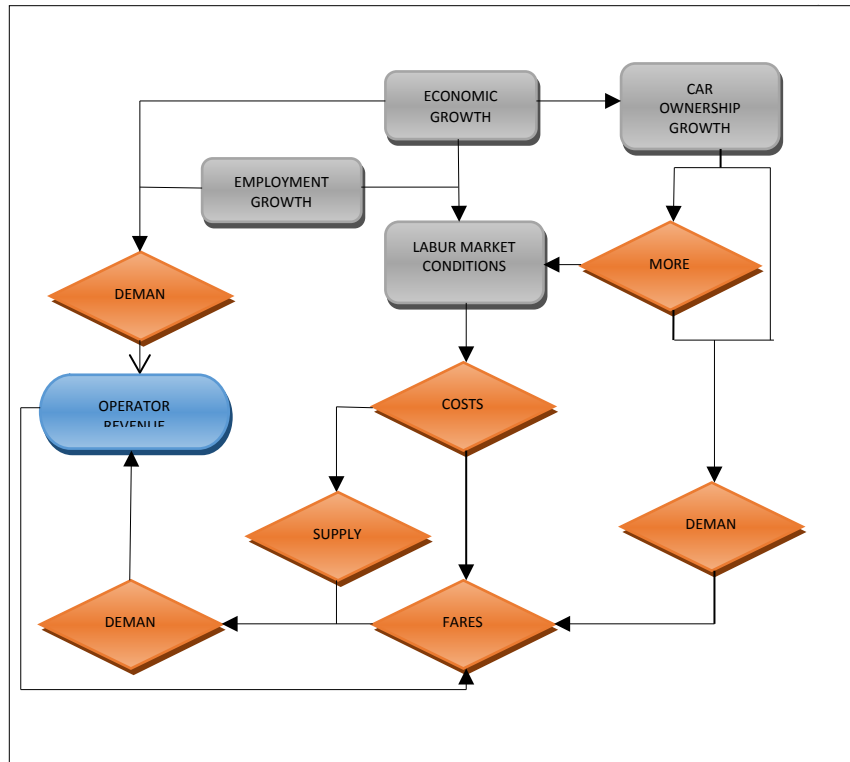


Fig. 1. The bus industry vicious cycle (Tas, 2010)

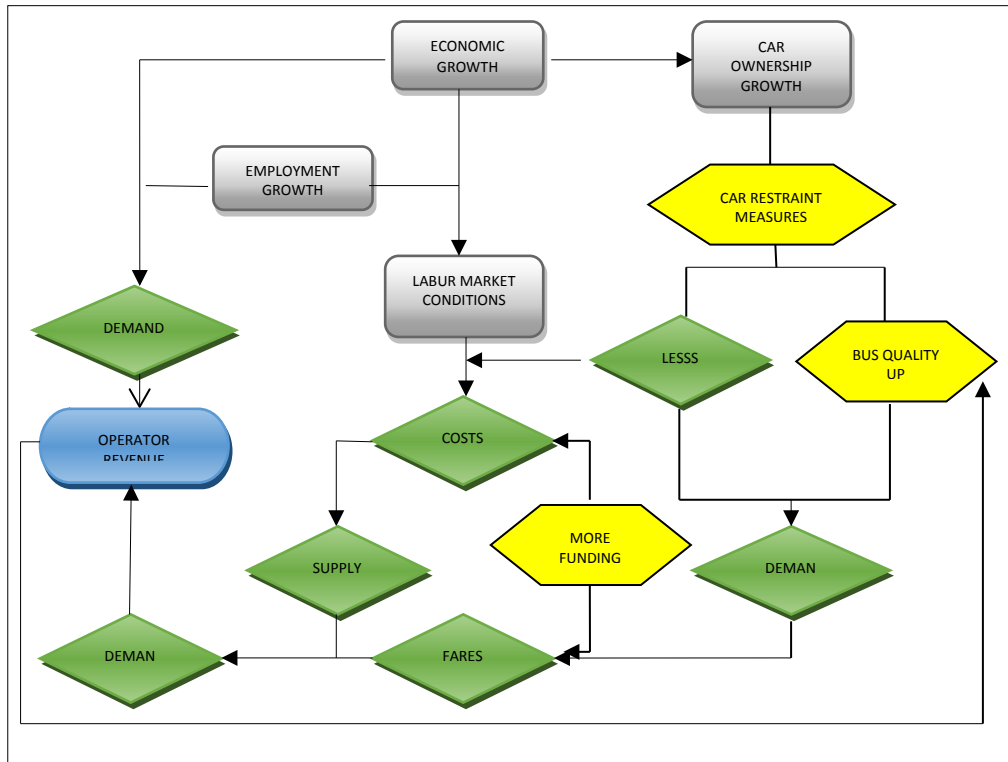


Fig. 2. The bus industry virtuous cycle (Tas, 2010)

‘We would argue therefore that transport operators’ behaviour is strongly influenced by the possibility of diverting passengers at the margin from car to public transport. Operators have no alternative but to pursue this strategy. The importance lies in the 1:13.8 ratio (illustrated below Table 2). Persuading 1% of motorists to switch generates a 13.8% increase in demand for public transport operators – which, given the nature of the cost structures – would have a significant and immediate effect on profitability. This is the “holy grail”, which everybody is trying to achieve... The existing market for bus services is declining for fundamental economic and demographic reasons and will eventually reduce to uneconomically low levels. The growth market lies amongst persuading motorists to use public transport more often. Therefore it is competition with the private car that most conditions operator behaviour’. TAS (2010: 70).

Table 2
Impact of Modal Switch on Public Transport Demand

% Switch of Car Demand switched to public transport	Car passenger km switched to public transport	% increase in bus demand	% increase in rail demand
1%	6.89	13.8%	11.8%
5%	34.45	69.2%	58.8%
10%	68.90	138.3%	117.7%
15%	103.35	207.5%	176.5%
20%	137.80	276.7%	235.4%

Source: TAS analysis of data from Transport Statistics Great Britain, 2008, Department for Transport (Tas, 2010: 69)

According to TAS report the market for bus services¹ is declining due to external factors (economic and demographic) and not internal reasons such as the absence of a higher

¹ In our paper, the term transport as “Public service” means, in general, “transport people, with different origins and different destinations, together in the same vehicle” that could be tram, train, bus, metro,

quality service (i.e. coordinated and integrated). The TAS report has quantified in Table 2 that the increase in bus market share in the event of a 1% decrease in car use would be around 13%. This means that private companies are not strong enough to persuade motorists to use public transport but are able to increase their market share if public authorities facilitate them by using car restraint measures (see Fig.2). Private companies look for profitable segments and do not care about the whole network. Network coordination is not a priority. They seek internal consistency and not a system meta-coherence. Deregulation created an archipelago of entrepreneurial formulas coherent within them but not among them (McGuinness et al., 1994; Sorensen and Gudmundsson, 2011). In a market regime private bus operators plan a service with the principal aim of making profits (output) not impact (outcome). The business strategy, as is known, is not the search for consistency between entrepreneurial formulas. On the contrary, it is the search for differentiation, distinction, uniqueness, and not coordination. The market is the ideal tool for this kind of search. It was created for this purpose and that is why it is protected by the antitrust regulation. Such regulations ensure that firms do not form cartels or agreements. The antitrust law also makes sure that firms do not find coordination mechanisms that undermine the greater good to produce innovative solutions through a real struggle. Paradoxically, at least in the early stages when the defence of competition itself had risen to the role of dogma, the law itself, by prohibiting and punishing cartels and agreements, ended up hindering the search for schedule and fare coordination that are highly valued by passengers (Sorensen and Gudmundsson, 2011; White, 2018). It was the law itself that contributed toward patronage decline. The logic of the market, as we know, does not work in favour of coordination. The antitrust regulation sees it as a violation of the laws of competition (van de Velde and Wallis 2013). This reasoning strongly overestimates the benefits of local on-road competition while undermines the benefits for passengers of an integrated and coordinated network

5. The 2000 Transport Act: searching for coordination through partnership

In order to make market logic less dogmatic, the British Parliament launched a new reform in 2000, envisaging new forms of collaboration (Bus Partnerships and Quality Contracts) between local authorities and private firms, with the aim of slowing down patronage decline (Davison and Knowles, 2006). This is because the reforms introduced under the 1985 Transport Act, unfortunately, did not deliver the desired results in terms of patronage but only improved efficiency (NERA, 2006; van de Velde and Wallis, 2013). This reform has, in some ways, overestimated the strength of private firms in identifying and better satisfying users' mobility needs and underestimating, or perhaps over-criticising, the effectiveness of planning and coordination measures set by public authorities (Sclar, 2000; Mees, 2010). This new reform was necessary due to the sharp decline in the number of passengers following deregulation (NERA, 2006). The new idea

streetcar, etc. This service can be provided by public and/or private operators. On the other hand, the term “*Bus service*” means the collective transport made by buses.

was to make local authorities more responsible for patronage goals by providing better local transport plans (five-year plans instead of annual) (Marsden and Bonsall, 2006; Marsden et al., 2008), and to loosen the rigidity of the rules that sanctioned anti-competitive behaviour. With this reform, authorities gained the power to initiate fares and information integration with the use of partnerships (Rhodes, 1997; Davison and Knowles, 2006). The authorities were committed to facilitating the work of transport firms through the provision of, for example, dedicated lanes. Private firms, for their part, were committed to making their schedules more coordinated to improve customer satisfaction. Previously, the Office of Fair Trading did not allow coordination because it was considered contrary to the competition rules (Sorensen and Gudmundsson, 2011). Now, it is encouraged and considered important for increasing the number of passengers. In this way, we see the start of collaborative relationships between the firms themselves and with local authorities. The same public authorities that were contested in the past, making coordination the object of critics, are now asked to pursue it, making coordination and not competition the object of action. More coordination is considered necessary to serve the goals of users rather than those of public organizations, as was previously thought. To strengthen coordination, a target regime between the central and local authorities was established (Marsden and Bonsall, 2006; Marsden et al., 2008; Hood, 2006). Central resources were provided to local authorities based on ambitious five-year transport plans coupled with a target regime based on a performance indicators system. Plans have to be in harmony with the policies and priorities set by the central government. They had to provide for the integration of all modes of transport and, in particular, develop a special bus strategy. Liberalization of the market has empowered private firms to decide on how to offer service in a given area, taking this power away from public authorities. The latter, however, retained control over investments in infrastructure (with resources transferred from the centre) traffic regulation, and use of roads. Consequently, a natural interest seemed to emerge in the collaboration between private firms and local authorities as both could benefit (Powell, 1997).

Private firms could improve profitability if local authorities granted them bus bus priorities, bus shelters and accessible kerbside stops, or, for example, created parking spaces. Local authorities could obtain funding from the central government if, through these interventions, they improve the quality of public transport and reduce congestion. In return, private firms would be committed to improve bus quality standards (new vehicles, better marketing and passenger information, enhanced driver training) and schedule coordination with the goal of increasing bus patronage. Thus, private and public interest were perfectly aligned. The more the user market grows, the greater the profits and the fewer the cars in circulation (Davison and Knowles, 2007). While confirming the choice of deregulation, the 2000 reform used the partnership leverage to correct the most visible distortions of myopic implementation of competition (Sorensen and Gudmundsson, 2011; Sorensen and Longva, 2011). Promoting partnerships meant highlighting the interdependence and complementarity of single actors and the advantages derived from collaboration and not only from competition.

The central authorities financed seventy projects to improve traffic infrastructure. Since these were bilateral voluntary agreements, and since the public authority's commitment was greater in terms of investments than that of firms, the risk of opportunist behaviour

was high. In other words, in the absence of binding rules, the risk that road improvements could be exploited by firms that have not improved their bus quality was very high. In fact, the final judgment on these agreements was not fully satisfactory (NERA, 2006; TAS, 2010; Sorensen and Gudmundsson, 2011); nevertheless, it contributed to breaking the isolation between local authorities, firms, and the central government, and helped initiate forms of collaboration that re-evaluated the need for coordination (Sorensen and Longva, 2011) as a critical success factor to foster the growth of users. Godfrey and Taylor (2018:318) summarize 25 years of partnerships on bus services:

“They have introduced additional and accelerated investment, enhanced relationships between operators and transport authorities, and enabled constructive modification of the pure market-oriented service model. The latter may have obviated or delayed pressures to restore a ‘regulated’ service planning environment.”

6. The 2008 Transport Act and the 2017 Bus Services Act: more powers to public authorities to pursue transport integration.

6.1 The 2008 Transport Act: Quality contracts and more powers to franchise

A re-evaluation of the role played by collaborative relationships, in comparison with the rigidity and inflexibility of the Office of Fair Trading rules, which represented the backbone of the 1985 Transport Act, is a central feature of the new transport reforms. In this sense, interest in a more active role for public authorities as well as the need to rebuild the network dismantled by the 1985 reforms resurfaced (Sorensen and Longva, 2011; van de Velde and Wallis, 2013). After the drastic drop in patronage, authorities began to look with interest at the so-called Quality Contracts. Real-service contracts are concluded between the local authority and a transport operator that acquires exclusive rights over an area or on a line in exchange for compliance with certain minimum quality standards. Quality Contracts (also called franchising, Barter 2008) represent the equivalent of the competitive tendering system, granting the winner service monopoly in exchange for results. In other words, a real performance contract, as suggested by Hensher (2007) and Hensher and Stanley (2008), is a more realistic solution, away from blind commitment, than free competition. Not everyone, of course, agreed on the new course (Hibbs, 2005, 2009). Primarily, this is out of fear that a service re-regulation would restore the position of public authorities in the control room with all the negative consequences that past history has demonstrated (Hibbs, 2005), thus fuelling the so-called ‘bus regulatory cycle’ based on alternating private and public failures (Gwilliam, 2008). In the 2000 reforms, these contracts were considered only as a last resort remedy. In the 2008 Act, orientation changed and public authorities' power of intervention increased. In contrast to the previous reform which provided partnership agreements (Statutory Quality Partnerships), the new 2008 reform gave public authorities the powers to specify frequencies, timetables, and even a maximum ceiling of fares to be applied. This seems to be an evident tendency towards the re-appropriation of the service tactical level (van de Velde, 1999) control by local authorities. This is very important because it signals a reassessment of the benefits of greater coordination that were denied with the 1985 Transport Act. The importance of the tactical level coupled with the use of a competitive tendering regime for some scholars (Barter, 2008; Mees, 2010) is a reasonable solution

to the double problem of improving efficiency and quality of the local public transport system. Barter (2008) shows greater awareness of the role played by tactical level planning efforts by public authorities empowered to deliver it. The meaning of Barter's classification lies precisely in the responsibility taken by local governments for ensuring service outcomes. Fig. 3 formally shows how the greatest responsibility lies with public monopoly while the lowest is attributed to deregulation.



Fig. 3. Typology of regulatory and industry structure options (Adapted from Barter, 2008:104-105)

In fact, Barter's classification is the sum of two dichotomies: an old dichotomy that opposes public monopolies to deregulation and emphasises openness as opposed to closure; a new dichotomy that, conversely, opposes a passive attitude (passive franchise) to a proactive attitude of a public entity empowered with the responsibility of delivering outcomes (proactive planning with service contracts). In this sense, the problem is not deregulation or monopoly, or openness versus closure, but the most important and decisive question of the presence or absence of an ambitious vision for a service (proactive planning) that is capable of producing quantifiable, visible social and environmental effects. The key distinction is between proactive planning and passive franchises, proactive and passive attitudes, and presence and absence of an ambitious integrated service plan. Such awareness of the benefits of greater coordination vs the benefits of local on-road competition starts blandly with the Transport Act of 2000, where it gradually began to distance itself from the then dominant logic of competition and deregulation. The Local Transport Plan Regime marked the beginning of this search for points of convergence and integration between the interests of private providers and those of the community (Sorensen, Gudmundsson, 2011). However, the effects were modest and focused only on areas where demand was particularly strong and where it was easier to find such convergences (van de Velde and Wallis, 2013). With the Transport Act of 2008, this path of integration research continued and intensified with the restoration of public authorities, but not as it ensued in the 1968 reform which established the Public Transport Authorities (Hibbs, 1989). This time, as reflected in the appellation used, Integrated Transport Authorities have to look for service integration in a more serious and responsible way (Owens, 1995; Hull, 2005; O'Sullivan and Patel, 2004; Mees, 2010; Sorensen and Longva, 2011; Stanley and Smith, 2013). This time the quality of service and its integration was the centre of the so-called Quality Contracts that specify in detail the modes of provision of the transport service. As discussed before, with lack of competition due to the market concentration, larger operators are able to make excessive profits at the expense of passengers. The solution to have more competitive pressure without more destructive competition is to give more power to local authorities to plan an

integrated network through the franchise option (Barter, 2008). However we need to notice that with this reform, the authorities received greater powers to introduce a franchise but it's still not enough to overcome the opposition of large bus groups that saw their profitability damaged through greater regulation imposed by local authorities (as in the Tyne & Wear case). Furthermore, some doubts raised by the Competition Commission on the opportunity of introducing greater regulation through the use of quality contract due to the excess profits found, without considering that these greater profits could be used by bus operators to continue operating in less profitable areas, did not contribute to overcoming a state of stalemate (White, 2018).

6.2 The 2017 Bus Services Act: more powers to impose transport sustainability

With the 2017 reform, the local authorities received more powers to contractually impose higher standards of service. The authorities can now specify in the contract a series of elements aimed at improving service standards and making it more homogeneous among different operators (fares, frequency, timing of service, smart ticketing, marketing, standard emissions, appearance of vehicles, common rules). Bus operators displaced by franchising do not have the right to receive compensation for lost profits, thus clearly resolving the doubts raised previously by the Competition Commission. The contractual scheme can be applied by one or more local authorities to cover a part or an entire area. Bus operators are obliged to supply all the information local authorities need to prepare the contract (passenger journeys, revenue, and vehicle-km operated). Noteworthy is the possibility given to local authorities to divert some service from more urban areas, where the authority may consider that there is over-provision of services, to rural areas (White, 2018).

The 2017 Bus Services Act reinforced the path initiated by 2008 Transport Act by improving regulation to better channel the excess profits towards the creation of a high quality bus network. Local authorities are now given powers that could potentially interfere with the freedom of bus operators to the point of reducing their profitability to subordinate it to the superior interest of passengers and sustainability.

While presenting this Act, Jesse Norman, Parliamentary Under Secretary of State for Roads, Local Transport, and Devolution wrote:

‘...the picture of bus usage across the country is mixed. While bus patronage has increased in London, other areas have seen a decline in passenger numbers. The benefits of a reliable and innovative bus service are clear: less congestion, greater productivity and communities that are connected rather than apart. However, we need more people to benefit from them. The Bus Services Act 2017 presents local authorities with new powers to bring about change, and unlock the potential for the bus industry to achieve more for passengers than it does today. New enhanced partnership and advanced quality partnership powers provide the framework for authorities to work side by side with operators to set a shared vision for bus services in their area. Regulations made under the new open data provisions and new ticketing powers should make it easier for passengers to use buses, move between different modes of transport and access timetables, fares, and routes. And the new franchising provisions will provide Mayors of combined authorities with equivalent powers to those available in London’.

This seems to be the natural evolution of the system. If deregulation, unfortunately, does not produce sustainable impacts (Gomez-Lobo, 2007), and does not increase the market for users, then it is worth moving to the regulated monopoly of market competition

(Demsetz, 1968) via enhanced and quality partnerships and contracts, thus re-evaluating the cross-subsidies and making them functional to the creation of an integrated high-quality service that increases bus patronage (Walker, 2008). In more general terms it remains to be seen in the future if these greater powers will be used by local authorities to achieve a higher quality bus service.

7. Concluding remarks

Integrated Transport Planning is a concept full of ambivalence and tensions. In literature, the value of integrated transport planning, with some exceptions, is not yet well understood. Its value is not formally recognized and needs empirical evidence. White (2018:343) regarding the introduction of 2017 Bus services Act observe that: ‘after thirty years of argument about ‘London v the rest’ a properly monitored franchise experiment should enable more constructive debate in future’. In scholarly works, the economic value (as opposed to the social and environmental value) of an integrated transport network is not yet clear (Brown and Thompson, 2008). The difference between high-demand lines that have better efficiency and higher box recovery and low-demand lines that have low efficiency and an equally reduced box recovery is clear. On the other hand, it is not clear how these services, which are perceived as less efficient, contribute towards creating economic value for the entire service network, thereby making it more financially sustainable (Pucher and Buheler, 2011). Further, from an empirical point of view, it is not yet clear whether this incremental value derives from the integration between high- and low-demand segments rather than from their separation. Some authors (Walker, 2008, 2010) suggest solving this problem practically by separating patronage goals from coverage goals, while others (Thompson, 1977; Brown and Thompson 2008; Barter, 2008; Mees, 2010) propose network or proactive planning. With the rise of new public management, integrated transport planning assumes a negative meaning where cross-subsidies between high-demand lines and low-demand lines, necessary for maintaining the network, are considered a waste. Planning is seen as a way not to avoid destructive competition but to destroy competition (Jakee and Allen, 1998). In spite of the negative and opportunistic meaning, positive valuations did exist to varying degrees. Further, despite the denials, many different realities worldwide (i.e. from London to Curitiba to Zurich) choose in practice to improve transport planning following a more ambitious vision of an integrated approach (Buehler et al., 2018). Paradoxically, the negative experience of the Great Britain 1985 Transport Act that introduced deregulation is an example that reinforces the value of a more coordinated and integrated approach to public transport, mainly to attract more passengers with the aim of reducing congestion and pollution. The first rehabilitation of the coordination mechanisms occurred in the 2000 Transport Act where partnerships were introduced to pursue greater coordination between private providers and public authorities (Sorensen and Longva, 2011). The negative effects of deregulation lead to a major reconsideration of re-evaluation of the coordination construct (Nera, 1996; Preston and Almutairi, 2013, 2014). Coordination is no longer a negative but an instrumental concept necessary to correct the defects of excess dogmatism with which deregulation has been implemented (van de Velde and Wallis, 2013) but it is

not enough. The next step was the 2008 Transport Act where coordination through partnerships gives place to stronger integration with the introduction of hierarchical mechanisms such as the quality contracts (Hensher, 2007; Hensher and Stanley, 2008). Integrated Transport Authorities were restored with more powers to pursue not only specific economic goals but to make sustainable social and environmental impacts (Holden et al., 2013). Integration as a top-down vision becomes a concept to talk about the future. In fact, in 2017, a new legislation was enacted with more powers to local authorities to impose a higher quality bus network and overcome the opposition of large bus groups. The transition from negative to positive meaning was not immediate but gradual over the years. During this transition, both negative and positive aspects, and the tensions between market and hierarchical mechanisms have survived together. In fact, attempts to save deregulation and new emerging bottom-up mobility business models, like Uber and BlaBlaCar, continue in literature (van de Velde, 2014; van de Velde & Karl, 2018; Mulley and Kronsell, 2018). However, the tension remains. Supporters of deregulation and bottom-up innovation, while recognizing the limitations, do not give up, and seek corrective measures rather than abdicating the idea of giving regulators the levers of service (fares, schedules, and frequencies) at the tactical level. They believe that the contribution of private firms is not only operational but also tactical. Private firms can innovate services at a tactical level, not only execute them well under the direction of public authorities (van de Velde et al., 2008, 2014). Innovative transport companies, like for example, Uber and BlaBlaCar all share the strategic aim of diverting passengers from their own cars by offering shared rides with ride-sharing apps. These innovative transport companies want to make profits by reducing the amount of single occupancy journeys so reducing congestion and pollution but they need regulation not direction. They need freedom on a tactical level to manage the levers that render their service so attractive to the passengers. In sum it is claimed that ‘insufficient attention is being paid to developing adequate regulation for the functioning of market initiative regimes (the ‘rules of the game’), (van de Velde, 2014: 33). In our opinion, this is a right tension. A positive tension that recalls the original meaning of competition: *cum-petere*. With the advent of New Public Management, the true meaning of ‘competing’ has been misrepresented. If we refer to the etymological meaning of the word, we would discover that it derives from the Latin word *cum petere*, which means ‘to go together’ or ‘to converge towards the same point’. Neoliberalism has completely erased the collaborative aspect inherent in the original etymological interpretation, highlighting, on the contrary, the concepts of prevalence and supremacy (the private sector is superior to the public sector that must be rendered inoffensive). In fact, both the public and the private sectors must converge towards a single objective, each according to the most appropriate role for resolving the problems of effectiveness and efficiency in a public transport system. Thus, both competition and coordination are needed (Marletto et al., 2016). The central challenge for transport sustainability is how to achieve many objectives at the same time. The problem is not to become more efficient or to find new ways to attract more passengers; the problem is to do both at the same time. There is no ‘one size fits all’ solution. There are pros and cons to both public transport and the various ride-sharing innovations. Despite public transport problems, there are some downsides to these new schemes too. Thus, despite the well-intentioned idea of Uber, BlaBlaCar, they cannot replace the need for

public transport because, for example, increasing people ride-sharing could mean a reduction in the use of public transport, which in turn means an increase of pollution and congestion in cities simply because Uber and BlaBlaCar are just cars. Reducing congestion and pollution caused by transportation is a complex issue and it cannot be solved by cars alone. So we need better public transit (integrated and coordinated) and shared bikes and shared cars. Without some forms of competition it is not realistic to reduce costs and offer innovative solutions like these ride-sharing schemes but, at the same time, without an integrated and coordinated vision of the transport service it is not possible to produce significant social and environmental impacts. In conclusion transport sustainability must be found in a mix of mechanisms (Rhodes, 1997): not only market and partnership but also hierarchal mechanisms, such as an integrated and coordinated transport planning.

References

- Banister, D., 2005. *Unsustainable Transport*. Routledge, London.
- Banister, D., 2008. The sustainable mobility paradigm. *Transport Policy*, 15, 73–80.
- Barter, P.A., 2008. Proactive Planning with Business Delivery of Excellent Urban Public Transport. *Policy and Society*, 27, 103-114.
- Booth, C., Richardson, T., 2001. Placing the public in integrated transport planning. *Transport Policy*, 8, 141-149.
- Brown, J.R., Thompson, G.L., 2008. Examining the influence of multideestination service orientation on transit service productivity: a multivariate analysis. *Transportation*, 35, 237–252.
- Buehler, R., Pucher, J., Dummler, O., 2018. Verkehrsverbund: The evolution and spread of fully integrated regional public transport in Germany, Austria, and Switzerland. *International Journal of Sustainable Transportation*, 1–15.
- Buheler, R., Pucher, J., 2011. Making Public Transport Financially Sustainable. *Transport Policy*, 18, 128-136.
- Cruz, I.S., Katz-Gerro, T., 2016. Urban public transport companies and strategies to promote sustainable consumption practices. *Journal of Cleaner Production*, 123, 28-33.
- Currie, G., Wallis, I., 2008. Effective Ways to Grow Urban Bus Markets—A Synthesis of Evidence, *Journal of Transport Geography*, 16(6), 419–429.
- Davison, L.J., Knowles, R.D., 2006. Bus Quality Partnerships, modal shift and traffic decongestion. *Journal of Transport Geography*, 14, 177-194.
- Demsetz, H., 1968. Why regulate utilities?. *Journal of Law and Economics*, 11, 55-66.
- Docherty, I., Shaw, J., 2011. The transformation of transport policy in Great Britain? 'New Realism' and New Labour's decade of displacement activity. *Environment and Planning A*, 43(1), 224-251.
- Docherty, I., Shaw, J., Gather, M., 2004. State intervention in contemporary transport. *Journal of Transport Geography*, 12, 257-264.
- Dodson, J., Mees, P., Stone, J., Burke, M., 2011. *The Principles of Public Transport Network Planning: A Review of the Emerging Literature with Select Examples*. Griffith University.
- Godfrey, J., Taylor, J., 2018. The role of bus partnerships in Great Britain. *Research in Transportation Economics*, 69, 310–318.
- Gomez Lobo, A., 2007. Why Competition Does not Work in Urban Bus Networks. *Journal of Transport Economics and Policy*, 41, 283-308.

- Goodwin, P., Hallett, S., Kenny, F., Stokes, G., 1991. *Transport: The New Realism*, In *Transport—The New Realism*, Church House, London.
- Gwilliam, K., 2008. *Bus Transport: is There a Regulatory Cycle?*. *Transportation Research Part A*, 42, 1183-1194.
- Hansson, L., 2013. *Hybrid steering cultures in the governance of public transport: a successful way to meet demands?*. *Research in Transportation Economics*, 39, 175-184.
- Hefetz, A., Warner, M., 2012. *Contracting or Public Delivery? The Importance of Service, Market, and Management Characteristics*. *Journal of Public Administration Research and Theory*, 22, 289-317.
- Hensher, D., Stanley, J., 2008. *Transacting under a performance-based contract: the role of negotiation and competitive tendering*. *Transportation Research Part A*, 42, 1143-1151.
- Hensher, D.A., 2007. *Sustainable Public Transport Systems: Moving towards a Value for Money and Network-based Approach and Away from Blind Commitment*. *Transport Policy*, 14(1), 98–102
- Hibbs, J., 1989. *The History of British Bus Services*. 2nd ed., Newton Abbot, David & Charles.
- Hibbs, J., 2000. *Transport Policy: the Myth of Integrated Planning*, Institute of economic affairs, London.
- Hibbs, J., 2005. *The Dangers of Bus Re-Regulation and other perspectives on Markets in Transport*, Institute of Economic Affairs, London.
- Hibbs, J., 2009. *How Can we Call Transport a Utility?*. *Economic Affairs*, 29, 55-59.
- Hine, J., 2000. *Integration, integration, integration. Planning for sustainable and integrated transport systems in the new millennium*. *Transport Policy*, 7, 175-177.
- Hirschhorn, F., Veeneman, W., van de Velde, D., 2018. *Inventory and rating of performance indicators and organisational features in metropolitan public transport: A worldwide Delphi survey*, *Research in Transportation Economics*, <https://doi.org/10.1016/j.retrec.2018.02.003>.
- Holden, E., Linnerud, K., Banister, D., 2013. *Sustainable passenger transport: Back to Brundtland*. *Transportation Research Part A*, 54, 67–77.
- Hood, C., 1991. *A public management for all seasons?*. *Public Administration*, 69, 3-19.
- Hood, C., 1995. *The “new public management” in the 1980s’: Variations on a theme*. *Accounting Organizations and Society*, 20, 93-109.
- Hood, C., 2006. *Gaming in Targetworld: the Targets Approach to Managing British Public Services*. *Public Administration Review*, 66, 515-521.
- House of Commons Transport Committee, 2012. *Competition in the local bus market Third Report of Session 2012–13*.
- Hrelja, R., 2015. *Integrating transport and land-use planning? How steering cultures in local authorities affect implementation of integrated public transport and land-use planning*, *Transportation Research Part A*, 74, 1–13.
- Hull, A., 2009. *Transport Matters. Integrated Approaches to Planning City-Regions*, Taylor & Francis.
- Hull, A., 2005. *Integrated Transport Planning in the UK: from Concept to Reality*. *Journal of Transport Geography*, 13, 318-328.
- Jakee, K., Allen, L., 1998. *Destructive Competition or Competition Destroyed? Regulatory Theory and the History of Irish Road Transportation Legislation*. *European Journal of Law and Economics*, 5, 13-50.
- Klein, D.B., Moore, A.T., 1997. *Schedule Jockeying and Route Swamping: bus market in Britain need kerb rights*, Institute of Economic Affairs, IEA, 29-44.
- Lave, C., 1991. *Measuring the decline in transit productivity in the U.S*. *Transportation Planning and Technology*, 15, 115–124.
- Le Grand, J., 2003. *Motivations, Agency, and Public Policy. Of Knights & Knaves, Pawns &*

- Queens, Oxford University Press, Oxford.
- Lek Report, 2010. Review of Bus Profitability in England, Lek Consulting, London.
- Lonti, Z., Gregory, R., 2007. Accountability or Countability? Performance Measurement in the New Zealand Public Service, 1992-2002. *The Australian Journal of Public Administration*, 66, 468-484.
- Mackie, P., Preston, J., Nash, C., 1995. Bus Deregulation: Ten Years on. *Transport Reviews*, 15, 229-251.
- Malvestio, A.C., Fischer, T.B., Montano, M., 2018. The consideration of environmental and social issues in transport policy, plan and programme making in Brazil: A systems analysis. *Journal of Cleaner Production*, 179, 674-689.
- Marletto G., Franceschini, S., Ortolani, C., Sillig, C., 2016. *Mapping Sustainability Transitions*, Springer.
- Marsden, G., Bonsall, P., 2006. Performance targets in transport policy. *Transport policy*, 13, 191-203.
- Marsden, G., Kelly, C., Nellthorp, J., 2008. The likely impacts of target setting and performance rewards in local transport, UTSG, Southampton.
- McGuinness, I., Gillingwater, D., Bryman, A., 1994. Organizational responses to the deregulation of the bus industry in Britain, *Transport Reviews*, 14(4), 341-361.
- McLeod, S., Scheurer, J., Carey Curtis, C., 2017., *Urban Public Transport: Planning Principles and Emerging Practice*. *Journal of Planning Literature*, 1-17.
- Mees, P., 2000. *A Very Public Solution*. Transport in the Dispersed City, Melbourne University Press, Melbourne.
- Mees, P., 2010. *Transport for Suburbia*, Earthscan, London.
- Meyer, M.W., Zucker, L., 1989. *Permanently Failing Organizations*, Newbury Park, CA, Sage Publications.
- Mugion, R.G., Toni, M., Raharjo, H., Di Pietro, L., Sebatu, S.P., 2018. Does the service quality of urban public transport enhance sustainable mobility?. *Journal of Cleaner Production*, 174, 1566-1587.
- Mulley, C., Kronsellb, A., 2018. Workshop 7 report: The “uberisation” of public transport and mobility as a service (MaaS): Implications for future mainstream public transport. *Research in Transportation Economics*, 69, 568–572.
- Nera, 2006. *The Decline in Bus Services in English PTE Areas: the Quest for a Solution*, NERA Economic Consulting, London.
- Newman, P., Kenworthy, J., 2015. *The End of Automobile Dependence. How Cities Are Moving Beyond Car-Based Planning*, Island Press.
- Nielsen, G., 2005. *HiTrans best practice guide 2: public transport – planning the networks*. Stavanger, Norway: European Union, Interreg IIIB.
- O’Sullivan, P.J., Patel, T., 2004. Fragmentation in transport operations and the case for system integrity. *Transport Policy*, 11, 215-225.
- Owens, S., 1995. From ‘Predict and Provide’ to ‘Predict and Prevent’?: Pricing and Planning in Transport Policy. *Transport Policy*, 2, 43-49.
- Paulsson, A., 2018. Making the sustainable more sustainable: public transport and the collaborative spaces of policy translation. *Journal of Environmental Policy & Planning*, 1-15.
- Petersen, T., 2016. Watching the Swiss: A network approach to rural and exurban public transport. *Transport Policy*, 52, 175–185
- Pickrell, D.H., 1985. Rising deficits and the uses of transit subsidies in the United States. *Journal of Transport Economics and Policy*, 24(3), 281-298.
- Powell, W.W., 1990. Neither market nor hierarchy. Network forms of organization. *Research in organizational behavior*, 12(2), 295–336.

- Preston, J., 1999. An overview of public transport in the United Kingdom and forecasts for the new millennium. In Sixth international conference on competition and ownership in land passenger transport, Plenary session, Cape Town, South Africa, 1-23.
- Preston, J., Almutairi, T., 2013. Evaluating the long term impacts of transport policy: An initial assessment of bus deregulation. *Research in Transportation Economics*, 39, 208-214.
- Preston, J., Almutairi, T., 2014. Evaluating the long term impacts of transport policy: The case of bus deregulation revisited. *Research in Transportation Economics*, 48, 263-269
- Redman, L., Friman, M., Garling, T., Hartig, T., 2013. Quality attributes of public transport that attract car users: A research review. *Transport Policy*, 25, 119–127
- Rhodes, R.A.W., 1997. From Marketization to Diplomacy: it's the Mix that Matters. *Public Policy and Administration*, 12, 345-363.
- Rivasplata, C., Iseki, H., Smith, A., 2012. Transit Coordination in the U.S.: A Survey of Current Practice. *Journal of Public Transportation*, 15(1), 53-73.
- Robert, K.H., Boren, S., Ny, H., Broman, G., 2017. A strategic approach to sustainable transport system development - part 1: attempting a generic community planning process model. *Journal of Cleaner Production*, 140, 1-9.
- Savage, I., 1985. *An Economic History of Transport*, Hutchinson, London.
- Savage, I., 1993. Deregulation and Privatization of Britain's Local Bus Industry. *Journal of Regulatory Economics*, 5, 143-158.
- Sclar, E., 2000. *You don't Always Get What you Pay for. The Economics of Privatization*, Cornell University Press, Ithaca.
- Simpson, B.J., 1996. Deregulation and privatization: the British local bus industry following the Transport Act 1985. *Transport Reviews*, 16(3), 213-223.
- Sørensen, C.H., Gudmundsson, H., 2010. The impact of governance modes on sustainable transport – the case of bus transport in Greater Manchester, UK, *World Review of Intermodal Transportation Research*, 3(1/2).
- Sorensen, C.H., Longva, F., 2011. Increased Coordination in Public Transport – Which Mechanisms are Available?. *Transport Policy*, 18, 117-125.
- Stanley, J., Smith, A., 2013. Governance, Contracting, Ownership and Competition Issues in Public Transport: Looking Up not Down. *Research in Transportation Economics*, 39, 167-174.
- Stenstadvold, M., 1996. Institutional Constraints to Environmentally Sound Integrated Land Use and Transport Policies: Experiences from the Norwegian Integrated Land Use and Transport Planning Scheme. *Journal of Environmental Planning and Management*, 39(4), 593-605.
- Tas, 2010. *Competition in the UK Bus Industry. A Submission of Evidence to the Competition Commission Local Bus Service Market Investigation*, The Tas Partnership Limited Publishing.
- Taylor, B.D., Miller, D., Iseki, H., Fink, C., 2009. Nature and/or nurture? Analyzing the determinants of transit ridership across US urbanized areas. *Transportation Research Part A: Policy and Practice*, 43(1), 60-77.
- Thompson, G.L., Brown, J.R., Sharma, R., Scheib, S., 2006. Where transit use is growing: surprising results. *Journal of Public Transportation*, 9(2), 25-43.
- Thompson, G.L., 1977. Planning Considerations for Alternative Transit Route Structures. *Journal of the American Institute of Planners*, 43(2), 158-168.
- Thompson, G.L., Matoff, T., 2003. Keeping up with the Joneses: Radial vs. multidestinalional transit in decentralising regions. *Journal of the American Planning Association*, 69(3), 296-312.
- van de Velde, D., 1999. Organisational Forms and Entrepreneurship in Public Transport. Part. 1: Classifying Organisational Forms. *Transport Policy*, 6, 147-157.
- van de Velde, D., 2014. Market initiative regimes in public transport in Europe: Recent

- developments. *Research in Transportation Economics*, 48, 33-40.
- van de Velde, D., Veeneman, W., Schipolt, L.L., 2008. Competitive tendering in The Netherlands: Central Planning vs Functional Specifications. *Transportation Research Part A*, 42, 1152-1162.
- van de Velde, D., & Wallis, I., 2013. Regulated Deregulation of Local Bus Service – An Appraisal of International Developments. *Research in Transportation Economics*, 29, 145-159.
- van de Velde, D., & Karl, A., 2018. Workshop 3 report: Market initiative regimes in bus, coach and rail: Recent developments, threats, developing paradigms and regulatory needs. *Research in Transportation Economics*, 69, 254-259.
- Walker, J., 2010. *Human Transit*, Island Press.
- Walker, J., 2008. Purpose Driven Public Transport: Creating a Clear Conversation About Public Transit Goals. *Journal of Transport Geography*, 21, 403-425.
- White, P., 1995. Deregulation of local bus services in Great Britain: an introductory review. *Transport Reviews*, 15, 185-209.
- White, P., 1997. What conclusions can be drawn about bus deregulation in Britain?. *Transport Reviews*, 17, 1-16.
- White, P., 2018. Prospects in Britain in the light of the Bus Services Act 2017. *Research in Transportation Economics*, 69, 337–343.
- Winston, C., 2000. Government Failure in Urban Transportation. *Fiscal Studies*, 21, 403-425.

Graphical abstract

