



A renewed economic policy of transports

Rocco Giordano

Professor of Economics of Transport and Logistics, University of Salerno (Italy)

Abstract

The reference to a new way of reading transport policy and economy is necessary to combine sectorial policy to the rest of domestic economy.

The two main references are:

- To the economy finality of transports and its evolutive dynamics, to underline the need to shift the perspective from the “distance” of movement to the “time” of movement;
- To the logic of network connection, to manage the node of infrastructural policies focusing on the economic relation between accessibility and growth.

Keywords: economic finality of transports and renewed sectorial economic policy

1. Introduction

The field of interest of transport policy is to ensure the evolution and development of means and systems which can more appropriately shape the endeavours of service-producing enterprises and the behaviours of customers who employ those services produced by said enterprises for an optimal allocation of resources. Transport policy concerns not only the employment of public savings (both for the creation of fixed social capital and the determination as well as distribution of financial measures that sustain business development policies), but also the determination of public choices (collective choices) on indivisible goods such as security, territorial equal distribution of opportunities, environmental protection, etc.

A first instrument in the hands of subjects with the institutional and managerial responsibility of governing the transport system consists of all the legal provisions and related administrative framework. Traditionally, the Italian legal approach has focused on assimilating passengers, but also freight, transport to those activities in which public interest (especially in passengers transport) essentially aims at protecting social policies, to the point of preferring directly managing it rather than leaving it to private entities.

A second, not in the least secondary, instrument of transport policy has been the legal protection of the supply (monopoly conditions) which has emerged over time in various forms and resisted until a decisive mitigation occurred under the influence of the *deregulation*. Since the 1980s, the deregulation has hit the transport international scene,

but has started being at the core of the Italian political debate only in the past few years, with little success on the front of concrete implementation.

A third instrument can be identified in financial policy, designed to raise financial resources in order to deal with both investments and the expenditure for the exercise of services. In Italy, the fiscal principle of the ability to pay has been at the basis of each operation. However, the acceptance of a functional basis in the evaluation of the expenditure has not found a proper place yet.

I. Transport demand has not been regulated in order to lead it towards modalities apt to develop economies of scale, i.e. so as to ensure lower social costs; furthermore, on the supply side, the application of social tariffs, which have led to sizeable deficits, has facilitated a decline in productivity.

Moreover, urbanisation and, subsequently, processes for the spreading of development have occurred in a context of absence of adequate investments directed to both those sectors producing transports at digressive unit costs (railways, subways) and infrastructures of collection and organisation of freight traffic (freight centres, international ports, logistic platforms).

Thus, decisions have been taken which have produced extremely high social costs and a hardly adjustable system distortion which, if not dealt with the perspective of transport policy and economy during decision-making, will continue determining strong diseconomies. It is also necessary to abandon technicalities which too often stress the system and push it towards virtuositities which are inapplicable, because based upon a merely theoretical conceptual ground that not only does not take into consideration, or lacks of, correct evaluations of needs but is also unlikely to fix the distorted market logics.

Due to an inability to create appropriate instruments and policies, the economic productivity of public transport (both passenger and freight) has decreased to the benefit of private transport, according to a notion of development essentially built upon private consumptions.

On the side of the supply, the transport system has been considered as a modalities-organised scheme organised in which choices on transport policy have been made sectorially, thus by considering each modality as a separate world to be either extolled (against competition) during an expansionary phase, or protected, during maturity or stagnation.

As a result, the formation of a services supply system has been facilitated: a partitioned and undercapitalised system with an easily approachable market.

On the contrary, the modern conception of transport policy proposes the diverse transport modes as non-substitutable but as apt to become both part of an organisation system and complementary. This more correct interpretation studies the various modes as belonging to one system rather than treating them as separate one from the other, and the system itself leads the demand towards a modal choice that is induced by supply characteristics. In such a way, freights' and travellers' mobility needs can be better understood, and particularly satisfied. Therefore, the focus shifts on the advantages for the customers and thus, on the analysis of the both supply and demand conditions which can influence customers' choice so that the best solution to avoid monopolies or, on the contrary, concurrence abuses might prevail.

This shift in perspective determines, on the practical side, two major necessities: revising all those physical and functional aspects of transport networks and services, in terms of system, in order to facilitate the development of intermodality; and

unifying sectorial legislative, economic and administrative policy, through a transport programme able to realise a deeper integration of the transport and territorial policies.

- II. The process of transports planning has started in Italy with the approval (DPR 10.04.1986) of the General Transport Plan (GTP), updated every three years, and to which sectorial and multi-level territorial plans are subordinated.

Through the General Transport and Logistics Plan of 2005 – at least for what concerns the freights sector -, the effort has been to define the characteristics of transport services supply at different territorial scales and time frames, identifying legislative, organisational and regulatory measures necessary to rationalise the management of the sector, according to a logic that views as unified, at the same government level, both the decisions on services to be produced and the following expenditures. Indeed, it is well established that the central government maintains tasks of guidance with the purpose of implementing policies of transports and expenditures control; regions make decisions concerning local transports, regardless of the ways in which they are produced (networks, quantity, service levels); and producers (enterprises) have total control of all the instruments of company policy, in the field of contracts substituting negotiated financing with secured financing, corresponding to the amount of services to be produced, not protected by subsidies, but exerted at business risk.

With regard to the transport systems that operate at national and international levels, the new legislative-organisational framework follows the European Union's guidelines on a common sectorial policy, in the spirit of the Maastricht Treaty, aiming at the economy and social cohesion while guaranteeing free movement of persons and goods and with both the support of the development of a trans-European network (TEN-T) and the re-launch of investments, in a context of open markets in which State aids are regulated so as not to breach competition rules.

- III. For what concerns transport economy, the current vision in the sector is that all the transport modes form, altogether, a complex technical-economic organisation; the complexity arises from the fact that supply and demand are mutually influencing.

In the transport market, the supply is represented by linear and punctual infrastructures; means of transport that can access them and move on them; and services produced by different categories of operators.

The quantity and quality of the supply of services, present at a certain moment in the market, determine users' choice preferences. At the same time, the entity and spatial-temporal characteristics of the demand of movement, which depend on the settlement and production structure of the economic-territorial system, influence producers' choice preferences.

The demand of mobility (traffic volume measures in passengers/km and ton/km) that each system satisfies, assessed in relation to the expenditures for necessary investment and exercise, helps to define the effectiveness and efficiency of the system itself.

Transport economy concerns not only service-producing enterprises, enterprises' endeavours and individuals' behaviour in relation to the satisfaction of mobility needs, but also the external costs and benefits due to the fact that there is an

organisation and produces transport services. Data on expenditures, infrastructures, transport means and traffics created by activities that ensures movement are published every year in Italy in the *Conto Nazionale delle Infrastrutture e dei Trasporti*. Data show that the economic value of production, exclusively in the transport field (added value to the factor cost), historically registers a higher growth than the whole Italian economy. National transport expenditures of different categories of users, broken down by subjects and destination (current expenditures for the exercise, and capital expenditures for investments), create a system than tends to require increasing economic resources for the exercise in whom the component of the private expenditure is highly predominant.

In Italy, as well as in economically more developed countries, there has been an increase in the mobility at annual growth rates higher than those of the Gross Domestic Product (GDP). The increase in mobility has been accompanied (and in part has been determined) by a change in the demand structure.

For what concerns individuals, the weight of non-systematic mobility has increased (for personal business, leisure, shopping, tourism) if compared to that of systematic mobility (with constrained destination and hours), due to economic outsourcing.

For what concerns freights, the need of modern industrial and commercial enterprises of continuously adapting their own flows of supply/distribution to the market demand determines the necessity for flexible, reliable and fast transports.

In the case of both individuals and freights, there is the tendency of favouring those transport services that offer the highest quality assurance.

The traffic of travellers and freights on medium and long distances (more that 50 km) has generally increased at sustained rates, alongside a strong disequilibrium in the modal split in favour of road transport.

In urban and metropolitan areas, where the 55% of population and 70% of economic activities is allocated, the 80% of travellers and freight movement develops. Traffic occurs in conditions of increasing difficulty due to congestion which generates severe diseconomies in terms of time of travel, energy consumption, pollution and security, and it is one of the main causes of inefficiency of public transport systems, especially buses which use the same infrastructures on which private traffic happens.

The biggest share of Italian cities is not yet provided with metropolitan networks and parking spaces to an extent which realises a transport supply in which the public and private components complement, facilitating a more appropriate use of vehicles depending on the different needs of movement. The low amount of mass transport systems (rail and road transport) and facilities for the change of transport modes (parking spaces of interchange) is such that reaching the European medium standard would require a 300% increase of metropolitan networks extension, and a 40% increase of bus parking, besides the replacement of circa 40% of more than 10 years old buses.

The application of L. 211/92, foreseeing investments in the sector of fast mass transport system, is delayed due to needs of restraining public expenditure. Similar delays are registered in the application of the L. 122/89, concerning the realisation of parking lots.

These unsolved issues, on the front of passengers transport in the urban-metropolitan field, have also burdened the efficiency of the urban distribution of freights, creating conflicts on the use of networks and rest areas that local administrations tend to

address through the logic of environmental emergency, with disadvantageous effects of the economic sustainability of distributive frameworks.

- IV. A new conceptual and operative framework is needed in the field of transport economy and policy, starting from the idea that transport is not the final goal, but more and more a means of incrementing the economic and social benefit. With regard to freights transport, the modern industry requires that fast deliveries are granted through frequent and strict programmes on increasingly enlarging distribution networks. The growth of value for unit weight of transported freights, the diffusion of the *just in time* method of production, and the improvement of logistic efficiency as competitive leverage are structural tendencies that express themselves in full attention to time/price performance of transport.

With regard to travellers transport, the cumulative effects of economic, demographic, socio-behavioural and urban-territorial variables push towards a growth of the relative value of both non-systematic mobility, which requires flexibility and reliability of transports system, and mobility for business, where the monetarisation of travel time strongly affects the preference for high speed and comfort transport modes.

In order to establish supply conditions characterised by a higher efficiency and effectiveness for such needs, there is a shift in the transport field towards a divverticalisation of the process through which the supply is made available on the market.

There is a radical shift in perspective, in both sectors of travellers and freights, with the reorganisation of the system based upon the functional specialisation per territorial field, that is to say: local transport – medium-range transport – international long-range transport and on modal integration.

Since the 1990s, European Union's transport policies have undergone a new cycle of development, intended to reinforce the Community's economic cohesion and promote a transport market that aims to a network framework and services organisation that outdo any artificial modal and territorial segmentation for both passenger and freight transport. At the same time, market areas induced by the liberalisation of exchanges are increasingly widening.

The main objective of the European Union's transport policy are fundamentally: *a)* improving integration among Member States and, in particular, suburban areas; *b)* improving and strengthening connections with new Member States and, in particular, Eastern ones; *c)* realise a transport system responding to the need of environmental protection, with particular attention to forms of relatively ecological transport and at low energy consumption.

An active policy of competition is pursued. Such policy is viewed as an instrument that facilitates the continuous adjustment of demand and supply in relation to the technological development that allows enterprises to improve their efficiency.

The prevailing interest in the transport sector, aimed at multimodal integration, is to make networks, available on the market, characterised by three key factors: interconnectedness, intermodality, interfunctioning.

Investment policies aim at: eliminating bottlenecks existing in the current system, with new specific infrastructural measures and/or the introduction of new technologies; adjusting the networks to the new needs of environmental protection;

realising new and qualifying infrastructures, prioritising high speed rail networks, alpine transit routes, the finalisation of the missing links in motorway networks TEN (*Trans European Networks*), the networks of services of combined freight (rail-road and maritime-terrestrial), computerised systems for traffic management on networks. The geographic centrality of Italy between Western and Eastern Europe and between Europe and other Mediterranean States does not represent per se an assurance for competitively positioning itself in the European Single Market (ESM). The opportunity of improving its own role in the international transport system depends on the capability of managing, in the field of a national transport policy projected at European level, the complex relations of concurrence and cooperation that the ESM is determining.

Transports in Italy participate to the formation of the added value (to market prices) of the Italian economy for a share close to the 6% and register, both from the cyclical and structural perspective, a higher growth than that of the economic system considered in its entirety. Transport growth presents an elasticity compared to the GDP > 1 .

- V. New decisional patterns are being consolidated for the planning of the sector and the definition of relative supporting norms. Such patterns are able to delineate the system of norms; govern the process of demand; adjust the supply system; improve the infrastructure system. These new patterns cannot be separated from those related to economic and territorial development politics.

The interdependence between transports and territory, and the former's role of shaping the latter, stems from a theoretical observation that is confirmed by empirical evidence on localisation processes, in which transports emerge as main explicative factor, opposed to other less important factors, more easily manoeuvrable through urban policies.

Transports, in other words, can and, rather, should be employed to manage, or at least influence, the localisation of activities on the territory, which is the core issue not only of urban and territorial problems, but also of transport, traffic, movement problems. Adopting such approach means abandoning the concept of transport sectoriality and preferring using transports as instruments that concur to the solution of economic and territorial development problems that not necessarily appear as simple measures against traffic and/or movement.

This logic assigns a key role to transports with concern to the strengthening of networks connectivity, to be viewed as a condition of facilitating the shift from a tree structure (characterised by strong effects of domination and strict hierarchical dependencies) to a reticular structure characterised by increasing and spread interdependencies).

In the evaluations of the territorial effects that can be related to transport measures, connectivity becomes of the utmost importance: for the purpose of a larger spread of development, due to the fact that the increase of transport networks connectivity is the fundamental condition to facilitate the formation of interdependent territorial structures, strengthened through mutual relations rather than centripetal ones (focused on bigger cities); for the purpose of a higher competition of the Country-System, as some of the main bottlenecks penalising the functionality and efficiency

of national, other than international, exchange relations can be referred to the variations of connectivity caused by an unequal development of transports.

- VI. There are some preconditions that need to be satisfied in order to concretise a new season of sector planning.

2. The system of rules

The frameworks and institutional competencies in the sector are evolving in the direction of a transparent distinction, not yet fully reached, among powers of decision-making, coordination, implementation and control. The fragmentation of competencies and responsibility of the Public Administration in the transport sector still appear as one of the system's weaknesses in Italy. Compared to the framework of planning in public foreign and communitarian administrations, the Italian situation appears overdue, barely efficient and inadequate to respond to the challenges of integration and evolution of logistics systems.

The excess of economic regulation of markets has produced a substantial effect of distortion of concurrence and opportunities freeze for the development of enterprises that compete on international markets. Maintaining a quantitative regulation in the access to the market and in the price-setting of freight-based road transport on account of third party, which has been followed by a liberalisation provided by L. 32/2005 on the reform of road haulage, has further weakened the already fragile structure of the transport sector.

3. The demand system

In order to have a strong stability, the elasticity transports/GDP has to be able to count on a demand that can adjust on the changing in the market through: a redefinition of productive localisations and the comprehension of processes of internationalisation of supply and freight distribution markets; the renovation of logistic processes as factors of strategic competitiveness of industries and distribution.

4. The supply system

Actual transport trends (increase in the density of freight value, decrease of specific weight, specialisation vector/logistic) characterise the supply market money-wise. The prices paid by purchasers for transport operations, storage and movement of freight, assume relevance compared to volumes (transported tons) and traffic products (ton-km). In the field of long distance transport, the economic weight of maritime mode is preponderant; such modality expresses a strong presence of foreign vectors, also prevailing in the airplane and road (more than 2/3) modes and significant in rail mode. The weight of concurrence of freight vectors is increasing in all the modal components of the supply system covering long distances.

For what concerns road haulage, 3/4 of its monetary value is realised on regional wide markets, in whom services are mainly realised on their own account.

The dismantling of road haulage on account of third party does not allow to the biggest share of enterprises to participate to the organisation and management or complex and integrated networks, guaranteeing the profitability necessary to their evolution in terms of quality and sophistication of performance.

The performance of the Italian rail supply, in contrast to what has occurred in plenty of cases in other European countries, has been remarkable in the 1990s, but at the cost of a policy of indebtedness and public subsidy that has nothing to do with that of European countries and that, on the basis of communitarian guidelines, is no more sustainable, especially with regard to freight, where commitments of social nature are not definable for the State.

5. Investment and infrastructure system

European public administrations pay particular attention to the problem of infrastructures because the research of competitive advantages requires a deep structural and functional re-adjustment of the physical system of networks. In Italy, decision-making on investments on transport infrastructures are still characterised by the fragmentation of competencies among government and local authorities, slowness of bureaucratic procedure, uncertainty of funding, their continuous re-modulation that increases time and costs of realisation, in a context of planning unobservant of systemic aspect and modal integration, with short-term horizon and a bare involvement of private capital.

Decisions on priority infrastructures seem to be increasingly defined on the grounds of technical-economic-financial evaluations independent from any basic reference, represented by the interconnectedness between transport policy, policy of economic development and territorial policy.

- VII. Through the years, issues on transport economy and policy have been dealt with in a logic of adjustment to trends of scientific research and applied economy that often relied on technicalities regarding both/either applied modelling of engineering nature and/or economic evaluation of regional economy nature.

Reference to the economic finality of transports and to the connectivity of network means maintaining the links with evaluations on interdependence among diverse sectors, but making transport policy and economy assume that central role they have always had, both in public choices and private sectors.

An instance is the debate and the claims that have been developed on the networks TEN: we have carried out a debate using the same distorting method employed by an astrophysicist who pretends to study the star system through a microscope!

Another element of observation is that implemented transport policies are expression of a governance highly public in its nature, that is to say created by public subjects: Government, Regions, Local Authorities, that often are affected by ideologies that end up penalising evaluations of technical-economic-financial nature or, vice versa, by the “forging ahead” of insiders aiming at a theoretical rather than a political competition, which is necessary for overdoing criticism and thus, define, plan and implement virtuous systems.

The debate that is commencing on the day after the approval of the *Piano della Logistica* (Logistics Plan) defined by the *Consulta General dell’Autotrasporto e della Logistica* seems to focus essentially on one point: logistics is a competence belonging to the Ministry of Infrastructure and/or Productive Activities!

Put in such words, the matter concerns the absence of a conceptualisation concerning the fact that logistics does not need sectorial policies, but system ones. As in fact we have underlined in our economic system, in the last 20 years, not only large-sized but

also medium-sized enterprises had to face two *handicaps* when organising an efficient logistics:

- The absence, or non compliance, of system infrastructures necessary to organise the process of activities that characterises the logistics chain;
- The absence of structured transport enterprises able to sustain demand policies and aiming at focusing on the core business.

The result has been that through the years we have stopped organising virtuous policies, forcing our operators to sell FOB.

The conclusive result of these remarks is that policies to implement, whether they are based on demand (Productive Activities) or supply (Infrastructures and Transport), require dealing with an invariant factor: our transport, economic-productive, infrastructural system is nowadays penalised by higher costs, or better, by system diseconomies that determine 10-12% higher costs.

Therefore, whatever is the logic used to formalise governance in such complex system, policies have to be driven by the will to overcome these handicaps, that is to say it is necessary to stop looking at our transport system as the moon studied through the microscope and analysing the molecules of whom such system is composed with a telescope that usually offer the illusion of an infinite!

In sum, wherever the political responsibility for the choices concerning our transport and logistics system will be placed, the employment of instruments of analysis and inadequate decision-making will mean continuing a strabismus in the evaluations that will increasingly alienate us from the essence itself of governance.

References

- C. Cerruti, F. Musso, “*La logistica nei distretti industriali. Scenari di evoluzione per l’integrazione delle filiere*”, in Finanza Marketing e Produzione, n. 4 2004.
- CSST, *Territorio, Trasporti, Logistica. Un circuito da riattivare con il concorso degli attori economici locali*, a cura di Rocco Giordano, Confcommercio, Roma, 2005.
- Consulta Generale per l’Autotrasporto e la Logistica, *Il Piano Nazionale della Logistica 2012-2020*, Rocco Giordano, Coordinatore Tecnico Scientifico, luglio 2012
- Enciclopedia Italiana di scienze, lettere ed arti, *Appendice 2000, Trasporto*, a cura di Rocco Giordano, Istituto dell’Enciclopedia Italiana.
- R. Giordano, *Politica ed economia dei trasporti e della logistica*, Giordano Editore, ottobre 2006
- R. Giordano, *Il sistema logistico per la competitività globale*, Rivista Sistemi di Logistica, Anno VI - n.1, marzo 2013
- R. Giordano, G. Leonello, “*Scenari di impatto macro-economico*”, in Sistemi di Trasporto, gennaio 2003.
- A. Gozzi, *Osservazioni in tema di logistica industriale*, Egic, Genova, 1994.
- Grande Dizionario Enciclopedico UTET, “*Appendice 1997, Trasporti, politiche*”, a cura di Rocco Giordano.
- Limes, Rivista Italiana di Geopolitica, n. 5/2012
- C. Migliardi, *Strategia di investimento e manutenzione delle reti ferroviarie subsahariane*, Rivista Sistemi di Logistica, n. 2/2014
- Ministero delle Infrastrutture e dei Trasporti, *Conto Nazionale delle Infrastrutture e dei Trasporti. Anno 2003 con elementi informativi per l’anno 2004. Commissione delle*

Comunità Europee, COM(2001) 370 Def., Libro Bianco: La politica Europea dei trasporti fino al 2010: il momento delle scelte, Bruxelles, 2001.

P. Pontrandolfo, "*Organizzare la logistica in maniera efficiente*", in *TIL*, n. 509, 2003.