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Proposal for a Directive of the European Parliament and the Council, amending Directive 91/440/EEC on the development of the Community's railways to gradually open up the market for international passenger services by rail

Extended Impact Assessment

{COM(2004)139 final}

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EXECUTIVE SUMMARY

The extended impact assessment revealed that the proposal to allow railway undertakings free access to the network of the Member States to carry out international passenger services, including cabotage services, will be beneficial. This outcome is based on the results of the modelling exercise and the qualitative survey carried out amongst the main stakeholders, provided that:

– Cabotage is allowed (the extension to all service not covered by a public service agreement would yield even better results). Market opening without cabotage will only be feasible for a very restricted number of links;

– The regulatory framework regarding railways is fully implemented, and that uncertainty is lifted concerning the Regulation on public service agreements (the contractor assumed the amended proposal from February 2002 to be adopted for the purpose of its modelling exercise);

– Access charges will be restricted to marginal costs. Mark ups or other additional infrastructure charges will have substantial negative effects on the profitability of the services;

– Railway undertakings (are requested to) co-operate for the provision of information and (integrated) through tickets. This co-operation is foreseen in the draft proposal on passengers rights' and obligations;

– Railway undertakings can have a high degree of certainty on the number of consecutive years the services can be ran (in particular if the capacity is scarce as a result of higher priorities given to freight traffic and or passengers traffic under public service agreements).

Assuming that the proposal is fully implemented in 2010 by all the Member States, its implementation could generate the following impacts by 2020, compared to a 'business as usual' scenario:

– A substantial increase of the number of services, train kilometres and passenger kilometres for international, long distance and High-Speed traffic;

– A slight increase of the modal share of rail transport;

– A modest increase of turnover and profitability on international, long distance services, and a reduction of operational costs;

– A small increase of the investments in High-Speed rolling stock, but a small decrease of investments in conventional rolling stock;

– A slight reduction of the external costs and state aids to be provided to the sector;

– There could be a slight positive impact on overall employment in the sector, especially as a result of the introduction of additional services to be provided to passengers as well as the adoption of some of the measures proposed in the Regulation on Passengers' rights;

– Overall impact on safety and security is positive because operators will be either the incumbents, which already have a tradition of high safety and security, or new operators, which can not afford any negative publicity in this respect.

The difficulty of the modelling exercise should be underlined, particularly because it was not able to grasp fully the dynamism to be expected from the completion of the trans-European high speed network, the new European regulatory framework including standardised technical and safety norms.

The importance of the qualitative approach for the assessment, which consisted mainly of a thorough and extended survey amongst the main stakeholders, particularly the present monopolists, reveals a mixed support for a proposal for market opening.

Introduction

An efficient and well functioning transport system is essential for the creation and maintenance of a dynamic economy in the enlarged European Union. Such a transport system will substantially contribute to the achievement of the objectives set out within the framework of the Common Transport Policy and the Lisbon process, which aims to make the European Union in 2010 the most dynamic and competitive economy in the world.

Albeit modest in its share of the total transport, the rail mode plays an essential role in the European transport system: a full and sudden transfer of all transport by rail towards road and air transport would almost certain lead to a virtual standstill of the transport system and would seriously damage the output of the European economy and its structure, not to mention the severe damage likely to be inflicted on the environment.

Rail transport is an environmentally friendly and sustainable mode of transport and allows the EU to provide a substantial contribution to the achievement of the targets set under the Kyoto protocol on the reduction of the emission of greenhouse gasses, such as CO2. Furthermore, it provides employment, directly and indirectly, to a large number of persons

Though rail transport has major advantages compared to other transport modes, its relative share has declined over the last 30 years. Both passengers as well as freight transport saw their modal share reduced compared to for example road and air transport, whereas freight transport even saw a decline in absolute terms. Passenger transport increased slightly in absolute terms, but this increase can not be compared to the substantial increase for road and air transport.

A careful analysis of the reasons for this decline, points at the organisation and structure of rail transport in the Member States. Historically, both passenger and freight transport have been organised along national lines: rail transport was carried out by national railway undertakings, which were also responsible for the construction and maintenance of the rail infrastructure, railway safety and the rolling stock. Rail transport between Member States was, and still is, organised as co-operation between national railway undertakings, which prevented railway undertakings from starting operations in other Member States. International rail transport suffered from this structure as national rail networks were hardly interoperable: locomotives for example had to be changed at the border as they were unable to run on the network of another Member State due to different signalling systems; electrification systems or even gauge widths. Train staff very often could only operate in one Member State, and had to be replaced at the border as well. Administrative and technical formalities to be complied with at the border added to long waiting times at the border which made rail transport less and less attractive to other modes of transport, such as road or inland waterways. The organisation according to national lines prevented, and still prevents as far as passenger transport is concerned, railway undertakings from realising economies of scale and optimisation of market segments, such as occasional transport or leisure travel for passengers.

The decline of the rail sector, as well as an increased awareness of the importance of the rail sector and the opportunities it potentially provides, lead to a long series of legislative measures to allow for the creation of a truly integrated European railway area. Within this railway area, railway undertakings should be able to offer competitive rail transport services within and between the Member States of the European Union, without delays at national borders and by making use of rolling stock able to run on the networks of the different Member States.

The latest legislative proposals adopted by the Commission in 2002[1] notably foresee the full opening of the market for international and national freight services by rail in the European Union by 2008 at the latest. The market for passenger transport though has not been fully opened yet, and is still carried out as co-operation agreements between national railway undertakings or, in a few cases, as an international grouping[2]. The decline of international passenger transport, except for High-Speed services, has not stopped and necessitates the elaboration and adoption of measures to provide railway undertakings access to the network of other Member States for carrying out international passenger services.

The Commission has already announced in its White Paper on European Transport for 2010: time to decide[3], its intention to table further proposals to allow for this market opening. The Commission decided to carry out an in-depth analysis of the consequences and impacts for the railway sector and its main stakeholders as a result of the introduction of further market opening.

This Working Paper provides an overview of the main results from this extended impact assessment of the implementation in the European Union of a Directive on the gradual opening up of the market for international passenger services by rail. This extended impact assessment is based on the Commission's Communication on Impact Assessment[4].

The assessed draft Directive aims to modify Directive 91/440[5] by granting railway undertakings access rights to the rail infrastructure in Member States in order to operate international passenger services provided the railway undertakings are in possession of a European licence[6] and a safety certificate[7].

During such a service, railway undertakings will be allowed to pick-up and drop passengers at all stations served by the international service, even if these railway stations are located in one Member State only ('cabotage'). An international service from Brussels to Berlin will be allowed to carry passengers from Belgium to Germany, and vice versa, as well as passengers within Belgium and Germany. Member States may exclude from this market opening origin-destination pairs, which fall under an agreement concluded within the framework of Regulation 1191/69[8]. This restriction though shall not limit the right of railway undertakings to embark and disembark passengers at stations located on a link served by an international service, including between railway stations located in one Member State.

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1 COM (2002)18, of 23 January 2002: Towards an integrated European railway area, tabled together with 4 legislative proposals and one proposal for a Recommendation.

2 Article 10 of Directive 91/440 foresees the possibility of international groupings of railway undertakings carrying out international services between the Member States where the railway undertakings are established, eventually crossing third countries, provided the railway undertakings have the required licence and safety certificates to operate in the Member States crossed by the international services.

3 COM (2001) 370 of 12 September 2001.

4 COM (2002) 276 of 5 June 2002.

5 Directive 91/440 of 29 July 1991 on the development of the Community's railway, OJ L 237 of 24 August 1991.

6 The European license is awarded under the conditions set out in Directive 95/18 of 19 June 1995, as amended by Directive 2001/13 of 26 February 2001.

7 The safety certificate is awarded by the national authorities under the conditions set out in Directive 91/440, as amended by Directive 2001/12 of 26 February 2001. The second railway package proposed by the Commission in January 2002 included a proposal for a safety directive defining common safety rules, COM (2002) 21 of 23 January 2002.

8 Regulation 1191/69 of 26 June 1969, OJ L 156 of 28 June, as amended by Regulation 1893/91 of 20 June 1991, OJ L 169 of 29 June 1991.

This report will start with an overview of the current organization of the market for international passenger services by rail (section 1). It will in particular address the organizational and legal framework under which international passenger services are carried out nowadays. As this is influenced by the organization of national passenger services, a short explanation will be given on the organization and financing of national passenger services as well as the applicable Community legislation in this respect. On this basis, a description will be provided of the main problems that lead the Commission to table a proposal (section 2) as well as the main objectives the proposal intends to achieve by its implementation (section 3).

In section 4, the main policy options and instruments available to the legislator will be discussed. The implications of the policy options and instruments with regard to the subsidiairity and proportionality principles will be considered in section 5. The main impacts expected from the identified options, both the positive and negative, will be evaluated on the basis of a study carried out for the Commission. This evaluation will include an analysis of the market situation and will be discussed in section 6.

Section 7 will describe how the results and the impacts of the proposal will be monitored and evaluated after its implementation, and will be followed by an account of how the main stakeholders were involved in the elaboration and consultation procedure of this proposal. The last section (section 8) of this report will give an overview of the proposal itself as well as its justification.

Section 1: The organisation of passenger transport by rail in the European Union.

National transport

Before the start of the reform process of the rail sector in 1991, which was initiated by the adoption of Directive 91/440 and reform processes in some Member States, the railways in Europe were mainly organised as national railway undertakings that owned or managed the rail infrastructure, the rolling stock and were providers of regional, national and international passenger services. The traditional railway undertakings ('incumbents') played an important role in the authorisation and certification of rolling stock to be used on the national network. The operational costs as well as the debt burden, which resulted from the costs of maintenance and construction of the infrastructure, could hardly be met by the revenues generated through passenger and freight services, which obliged national administrations to contribute extensively in order to allow rail services to be continued.

Within the framework of Regulation 1191/69, Member States are allowed to impose railway undertakings to continue with loss making services, provided that railway undertakings are duly compensated for these activities, according to a set of well defined provisions in this Regulation.

This Regulation has been amended by Regulation 1893/91, which introduced the possibility for the Member States to conclude contracts for the provision of public transport by –inter alia- railway undertakings between origin-destination pairs where no profitable public transport could be offered. Regional and local authorities in the majority of the Member States have concluded contracts with railway undertakings for the provision of passenger transport by rail for urban, suburban and regional transport in exchange for a financial contribution. Frequently, railway undertakings benefited from a restriction of competition on these links, such as the award of exclusive rights for operating rail services in a given area.

National long distance passenger transport is reported to be carried out by the railway undertaking without financial contribution from the national authorities (France, Germany), though some Member States have concluded a public service contract providing for (detailed) rules and conditions under which exclusivity is granted (Belgium and the Netherlands), whereas others have introduced a system of franchises awarded to railway undertakings to operate services on a part of the network (e.g.: the UK). A recent ruling by the Court of Justice in the Altmark Case[9] has determined clear conditions under which authorities have to tender for these services.

International transport

International passenger transport by rail is mainly organised as co-operation between national railway undertakings. This co-operation is made under the provisions of the COTIF convention and its annexes, and is further determined by many, detailed recommendations issued by the International Union of Railways (UIC), the association regrouping most (but not all) of the European railway undertakings. An international service from Berlin to Brussels for example is a co-operation between the German operator DB AG and the Belgian operator SNCB, where the responsibility for the service is allocated to DB on the German territory and to the SNCB for the Belgian part of the trip. The responsibility for the service shifts at the border where train staff change in many cases. Border crossings frequently require the change

[9] C280/00 of 24 July 2003.

of haulage, as not all locomotives are allowed to haul trains in other Member States. These changes account for substantial delays, thus making international services less attractive compared to other modes of transport.

The revenues and costs for running the international services are shared between the railway undertakings on a pre-determined basis and are settled by the Brussels based Clearing Centre of the railway undertakings[10].

It should be mentioned in this respect that Regulation 1191/69 does not preclude the conclusion of a contract between two or more Member States on the one hand and railway undertakings on the other hand in order to provide international passenger service in case such an international service incurs losses to the extent that it can no longer be operated under the co-operation regime as described above. The Commission though has not been informed until now about this type of contracts for the provision of public services.

European regulatory framework

This development of the European regulatory framework for the rail sector must be viewed within the framework of the creation of the internal market in 1992 after the adoption of the Single European Act. The first legislative measure adopted Council was Directive 91/440[11] on the development of the Community's railways. With the adoption of this Directive, several objectives were pursued, such as the financial restructuring of railway undertakings; the creation of an independent management, as well as the requirement that railway undertakings have to be managed on the basis of the same principles applied to commercial undertakings[12]. Furthermore, accounts for the different activities undertaken by railway undertakings, such as freight transport, infrastructure maintenance and construction, or passenger transport had to be clearly separated, especially if compensations were paid by national authorities for the continuation of loss making passenger services[13]. These provisions imply that the costs of international passenger services should be covered by the revenues from the sale of tickets or by subsidies from national authorities for maintaining this service. The transparency requirements also made it obvious that cross subsidisation of loss making international services with money earmarked for national public services or profits from freight transport or other activities could no longer be continued.

Directive 91/440 also introduced[14] the possibility for international groupings of railway undertakings to set up international rail services (freight or passengers) between Member States of the EU, and it gave transit rights through other Member States for international services between the Member States where the undertakings constituting the international groupings are established.

These international groupings can only carry out international services provided the participating railway undertakings have been awarded a European licence under Directive

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10 According to information provided to the Commission, railway undertakings selling tickets for international journeys aggregate the revenues according to a breakdown of per country where the journey takes place. A compensation scheme negotiated within the framework of the UIC determines the exact amounts to be paid, per Member State, and this information is sent to the Clearing Centre in Brussels. The latter collects the information from all its members and settles the claims accordingly.

11 Cited above

12 Article 5 of the amended Directive 91/440.

13 Article 6 of the amended Directive 91/440.

14 Article 10 of the amended Directive 91/440.

95/18[15], which defines under which licences are to be awarded to railway undertakings. The international groupings also require infrastructure capacity under the conditions set out in Directive 95/19[16]. The latter sets the framework conditions for allocation of railway capacity ('slots') to railway undertakings and the principles to be applied for charges set for the use of the railway infrastructure.

The staffs operating on these services have to be authorised to run train services over the networks of the Member States connected by these services.

As already indicated in the introduction, the interoperability of the national networks must be ensured in order to allow rolling stock to operate on several networks. The Council adopted two directives[17] to improve the interoperability of the European rail networks and the rolling stock in order to lift the barriers for international services at borders between Member States and to enable economies of scale in the provision and construction of the rail infrastructure in the EU and rolling stock.

The implementation of these Directives lead the Commission to table new proposals, which were subsequently adopted by the Council in 2001, and which are better known under the infrastructure package Directives[18]. These measures foresee a further integration of the European railway market by enabling a market opening for international freight transport on a dedicated section of the network, the Trans-European Rail Freight Network (TERFN) as of 2003. From 2008 onwards, the entire rail network in the EU will be opened for licensed railway undertakings for the provision of international rail freight transport. To enable this market opening, the infrastructure package also foresees the creation of clear conditions for the access to the rail network and the charges to be levied for its use[19]. Infrastructure managers, which are independent from the transport undertakings, have to draft a network statement defining the conditions for access and charging of the network. As with all deregulated markets, the creation of a market regulator has been considered essential to allow the rail market to develop in a satisfactory way.

In January 2002, the Commission tabled its second railway package, which contained 4 legislative proposals to amend the existing infrastructure and interoperability directives, as well as a proposal for a Regulation enabling the creation of a European Railway Agency[20]. These proposals were accompanied by the Communication 'Towards an integrated European railway area'[21], in which a roadmap towards the completion of a truly internal railway market was set out, more than 10 years after the completion of the single market in 1992. An important element in this package was the full market opening for national freight transport. However, the package did not include legislative measures for integrating the European market for passenger services by rail.

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15 Cited above

16 Directive 95/19 of 19 June 1995, OJ L 143 of 27 June 1995. This Directive is no longer in force after the adoption of Directive 2001/14, mentioned below.

17 Directive 96/48 of 23 July 1996 on the interoperability of the trans-European high-speed rail system and Directive 2001/16 of 19 March 2001 on the interoperability of the trans-European conventional rail system.

18 Directive 2001/12, 2001/13 and 2001/14 of 26 February 2001, OJ L 75 of 15 March 2001.

19 Directive 2001/14

20 COM(2002) 21-25 of 23 January 2002, see: http://europa.eu.int/comm/transport/rail/package/new_en.htm

21 COM(2002) 18 of 23 January 2002, see: http://europa.eu.int/comm/transport/rail/package/new_en.htm

Section 2: Identification of the problem

Decrease of services and volumes

Statistics[22] on passenger transport by rail show a modest increase in absolute figures, but a worrying decline in the modal share of the total passenger transport. In 1970, passenger transport by rail represented 10.4% or 219 bln passenger kilometres (pkm), whereas this share decreased to 6.4% (or 307 bln pkm) in 2001. Albeit the absolute number of pkm by rail increased by around 40% in 30 years, the total production of passenger kilometres by all transport modes rose by 128% in the same period, thus clearly showing the loss of market share of passenger transport by rail. The share of international passenger transport by rail is hard to assess, as no reliable figures are available or can be obtained from the railway undertakings[23]. A study carried out at the request of the Commission in 2001[24] estimated that international passenger transport by rail accounted for approximately 10 to 16% of the total turnover of the railway undertakings in 1999 (2.4 – 4.0 bln € on a total turnover of 24 bln € for EU15). According to a Eurobarometer survey, around 8% of the European citizens used the train for a journey to another EU country[25], mostly for leisure and tourism purposes (84%) or business purposes (16%). However, most of the foreign trips are not made by train, but by private car, coach or by plane, and these numbers are increasing.

The number and frequency of conventional international services has decreased substantially over the last years[26]. The main reason for this decline put forward by the railway undertakings is the fact that these international services do not recover its costs. As explained in the previous section, railway undertakings have to be managed according to the same principles that apply to commercial undertakings. As a result of this, railway undertakings have started to carefully assess the costs and revenues from international services, which revealed that the costs of these services largely exceeded the revenues, and that the subsequent losses could not be funded from other, profitable activities carried out by the railway undertakings. The losses suffered on international services can not be compensated by revenues from public service agreements for operating national services either. These considerations put together lead many railway undertakings to discontinue international passenger services[27].

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22 See: EU Energy and Transport in Figures, Statistical Pocketbook 2003: http://europa.eu.int/comm/dgs/energy_transport/figures/pocketbook/2003_en.htm and the market monitoring pages of the Rail Transport and Interoperability Unit, see: http://europa.eu.int/comm/transport/rail/market/index_en.htm

23 The Commission has requested several consultancy firms to assess aspects of the railway markets, but it turned out to be difficult, if not impossible, to obtain reliable figures on international passenger transport by rail, such as number of passengers; pkm; turnover; profitability, etc. Railway undertakings are reluctant to provide these data by invoking the commercial nature of the information.

24 Developing EU (International Rail Passenger Transport: Assessment of the actual and potential market for international rail passenger services, by OGM, Brussels, 2001, see: http://europa.eu.int/comm/transport/rail/research/studies_en.htm

25 Eurobarometer 59.2, carried out in the May-June 2003. The survey was carried out amongst a representative sample of 16.161 persons over 15 years in the EU15. The total population of 15 years and older in the EU is 312.641.000, from which we could reasonably deduce that more than 25 million persons in Europe used the train for international trips. A summary of the main results can be found on: http://europa.eu.int/comm/transport/rail/package2003/index_en.htm

26 The discontinuation of the international night services to and from Belgium by the SNCB has hit the headlines in several countries. A careful look at the number of services as reported in the Thomas Cook Continental Timetable though confirms the decrease of international services within Europe.

27 A recent example of this was the decision taken by the Belgian operator SNCB to discontinue all the night services to and from Belgium. The Commission has received a substantial number of complaints about this and many questions were raised by Members of the European Parliament, not in the least as

As shown in the previous paragraphs, railway undertakings suffer structural losses on the exploitation of international services, which lead to the discontinuation of many international services during the last years. If the organisational framework for the international passenger transport is not changed, it could lead to a further decrease of the supply of international passenger services by rail and there is a serious risk that, in the long run, the majority of the traditional long distance international services as ran in Europe for the last decades will disappear. The traditional co-operation of national railway undertakings, regardless whether this co-operation takes place within the framework of an international grouping or not, has resulted in the further development of international High-Speed services, but has left many niche services aside, such as car-sleepers, occasional transport, pilgrimages or services to winter sport resorts.

Emergence of High-Speed services

In other cases, conventional international services have been replaced by successful High-Speed services run over a dedicated High-Speed network. The conventional services between Paris and Brussels, calling at some intermediate stations have been replaced by a direct service, which links Brussels in 80 minutes to the French capital. This substitution has lead to a substantial increase of the aggregated supply on this international rail link and a modification of the demand: the reduced travel time has generated more demand from persons making a return trip within the same day, which was previously hardly worth its efforts. It has even started to attract commuter traffic. The substantial increase of aggregated demand as a result of the introduction of High-Speed services has slightly been influenced by the drop in demand from passengers using international services substituted by High-Speed services.

Consequences of the decrease of volumes and services

A further decrease in the supply of international passenger services by rail would significantly reduce the choice for passengers for the rail mode, thus forcing them to opt for another mode of transport, which could be more detrimental to the environment, or to a mode of transport, which further contributes to an increase of the use of the already heavily congested road infrastructure in the EU. This modal transfer also underlines that competing modes have been more innovative in offering new services, and managed to reach new market segments. It stresses the necessity for the rail mode to become more innovative in order to become more competitive and attractive for the market segments it lost to other modes.

The decrease of international services will affect those employed in this sector as well, as the sector generates employment, notably for on-board staff. An illustration of this is given by the redundancies as a result of the discontinuation of many international night services. It is hard to assess the consequences of a further discontinuation of international services for the levels of employment in this sector, as many incumbents do not provide figures on the resources necessary to operate international services and are able to redeploy staff within other units once services are discontinued.

Difficulties for new entrants

The current organisation of the railway market has not really lead to the emergence of new operators as the latter must conclude an agreement with a railway undertaking in another Member State to create an international grouping for the provision of international rail

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one of the services linked Brussels via Luxemburg with the French town of Strasbourg, which is often used by MEPs and their assistants.

services. This requirement constitutes a serious barrier to market entry, even for the provision of niche services, or services that were discontinued by incumbents. During the last years, a couple of these initiatives have been developed in Germany, Sweden, France and Italy (Berlin-Malmö for example), but problems in relation to the availability of haulage; shortage of railway capacity; problems with the homologation of rolling stock; inclusion of information on services in the time-table of the incumbent to name a few, potentially discourage other market entrants, and are likely to have prevented the emergence of new entrants as well as the growth of the market share of the new entrants already active.

Section 3: Main policy objectives to be reached

In its White Paper on European transport policy in 2010[28], the Commission indicated how it expects to implement the main policy objectives as set out by the Common Transport Policy on the basis of Article 71 of the Treaty. One of the objectives is to allow the rail sector to maintain its modal share in 2010 at the same levels of 1998, which means that the decline must be stopped, and that rail transport must increase in absolute terms as the aggregated transport demand is expected to rise by approximately 40% during the period 1998-2010. This objective applies to both passengers as to freight transport. The White Paper also announced the Commission's intention to table further proposals to strengthen the rights and obligations of passengers on international services.

As far as the passenger sector is concerned, the Commission has come to the conclusion that the current organisation of the market does not allow an optimal development of the potential of the market for international transport by rail. The potential for international rail transport is growing substantially though. Estimates from the study[29] mentioned previously suggest there was a huge increase in the number of foreign trips by Europeans during the last 20 years, of which only a small amount has been 'captured' by the rail mode. The changing demography of the ageing European population and the increased congestion in other modes will certainly result in a higher potential demand.

[28] Cited above

[29] OGM study, cited above

Section 4: Policy options and instruments

During the first and second reading discussions on the second railway package, the European Parliament has insisted on a full market opening of rail transport, not only for freight transport, as put forward by the Commission in its proposals and accepted by the Council, but also a full opening of the passenger market[30]. The latter though has not been proposed by the Commission and this amendment has been rejected by the Council. However, the European Parliament has insisted to introduce market opening for passenger transport, and increased pressure on the Commission and the Council.

There are several options for market opening in passenger transport by rail in order to stop its decrease and to revitalise its structure, market share and volume, but whatever option is selected, it must take account of the existing regulatory framework, in particular the framework set up under the terms of the amended Regulation 1191/69, as indicated in section 1. The latter raises the question on the selection of the most appropriate instrument to achieve the aim to open the market for international passenger services, in particular as this should be achieved to stop the decline of international passenger transport, and to provide it with an impetus to improve its market share and quality.

The Commission has considered several options and policy instruments to achieve the aims on passenger transport by rail set out in the White Paper, which are set explained and discussed below.

Policy options

The available policy options are strongly determined by the existing regulatory framework, the requirements expressed by the European Parliament and of course, what the sector can bear itself. The options should consider the inclusion of cabotage and the existence of public service contracts with or without restrictions on access to the network. Basically, there are six options to achieve this:

1. Opening of the market for international passenger services only, without cabotage. In this option, railway undertakings will get access to the network of the Member States to operate services between two or more Member States. Railway undertakings will not be allowed to carry passengers between stations located in the same Member State. Links covered by an international public service contract will be excluded. The international, non-stop service between Brussels and Paris is an example of a service allowed under this option. Another example could be an international service between Amsterdam and Berlin, which is only allowed to carry passengers that cross the border between the Netherlands and Germany. Embarking and disembarking in the same Member State will not be allowed;

2. Opening of the market for international passenger services with cabotage: as the first sentence in option 1, but railway undertakings are allowed to carry passengers between stations served by the international service in one Member State. Links covered by a national or an international public service contract are excluded. The railway undertaking is not allowed to operate services within a Member State only.

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[30] See: http://www3.europarl.eu.int/omk/omnsapir.so/pv2?PRG=NAVIG&FILE=20031023&LANGUE=EN&TPV=PROV or: http://europa.eu.int/comm/transport/rail/package/next_en.htm

An example could be an international service between Brussels and Cologne, which is allowed to carry passengers between Belgium and Germany, as well as within Belgium or Germany, provided none of the passengers is transported from and to destinations covered by a public service agreement;

3. Opening of the market for international passenger services with cabotage: as the first sentence in option 1, but railway undertakings are allowed to carry passengers between stations served by the international service in one Member State. Llinks covered by a national or an international public service agreement are included. The railway undertaking is not allowed to operate services within a Member State only. An example could be an international service between Brussels and Cologne, which is allowed to carry passengers between Belgium and Germany, as well as within Belgium or Germany, regardless whether the passengers transported from and to destinations covered by a public service agreement;

4. Opening of the market for international and national passenger services: railway undertaking will get access to the network of the Member States to operate regardless whether or not borders are crossed. Links covered by a national or an international public service contract will be excluded.

5. Opening of the market for international and national passenger services: railway undertaking will get access to the network of the Member States to operate regardless whether or not borders are crossed. Links covered by a national or an international public service contract will be included. This is the full market opening option;

6. The 'Business as usual' option: no changes to the current regulatory framework.

For all 6 options, the existing regulatory framework concerning capacity allocation, safety, certificates, licenses and interoperability will remain fully applicable. This means that railway undertakings must be in the possession of a European licence as well as a safety certificate allowing them to operate services with the rolling stock they own or lease and the staff they employ. Railway undertaking must also obtain the capacity to run their services.

Policy instruments

There are several policy instruments, which have been considered to implement the option mentioned above. The pros and cons of these instruments are described below, taking account of the policy options mentioned above.

1. A Regulation to be adopted by the European Parliament and the Council of Ministers, containing provisions allowing for the implementation of any of the first 5 options mentioned above. The provisions of a Regulation are directly applicable and do not require further implementation in the Member States, but its main inconvenience is that it requires a further modification of the already existing legal framework, notably the amended Directive 91/440;

2. Amendment of Directive 91/440: this Directive already defines the framework conditions for access to the rail infrastructure in the Member State. The main requirement to implement the second option mentioned above is a slight modification of these framework conditions, whilst maintaining the institutional framework put in place by the rail acquis;

3. Self-regulation by the railway sector itself. Market access in the railways sector as in all other network sectors has always been regulated by the legislator, and not left to the good will of the industry itself. The Community of European Railways (CER) recognised that this must be a political decision.

The most logical and appropriate instrument to implement any of the options 1 to 5 is the amendment of Directive 91/440, as it has been used for all the other segments of the rail market.

Section 5: Subsidiarity and Proportionality

In order to achieve the aims spelled out in section 3 –maintenance of the modal share of rail passenger transport in 2010 at the levels of 1998 by stopping the decline and revitalising its structure, volume and market share- it will be necessary to adopt measures at European level. These objectives can not be achieved by action undertaken at the level of the Member States. One Member State can adopt and implement the regulatory framework necessary to open its railway market, but has no say in the organisation and the structure of the rail market in another Member State, even though this might have substantial consequences for international passenger transport, in particular if the Member States are connected by railway links. Member States have the opportunity to conclude bilateral or even multilateral agreements to organise international passenger services. However, it would fragment the single market in an inacceptable manner.

The proposal is proportional in relation to the objectives it aims to achieve as it only slightly modifies the existing legal framework and limits itself to the regulation of market access. Important provisions for the set up of international passenger services, such as capacity allocation or harmonisation of technical standards have already been adopted and to a large extent, implement in the Member States. The proposal is limited to international passenger services, and does not modify the existing legal framework concerning public service obligations and contracts. Additional legislative measures to facilitate the market opening will be proposed within the framework of the Regulation on Passengers' Rights and Obligations on International Rail services, which the Commission expects to table shortly after his proposal.

Section 6: The impacts of the proposal and the different policy options

In order to assess the impacts of the different policy options spelled out in section 4, the Commission has requested an external consultant to carry out an extended impact assessment and an ex-ante evaluation of the introduction of the gradual opening up of the market for international passenger transport by rail[31]. The assessment consisted of an overview and an assessment of the regulatory regimes for rail passenger transport for the countries applying, or about to apply, the relevant Community Acquis. In particular, 4 countries were selected four an in-depth case study. The selected countries were Germany, Spain, Sweden and Hungary and are considered to be representative for the different type of regimes and practices in Europe. The assessment also consisted of an analysis of the attitudes and interests of stakeholders in respect of rail passenger liberalisation and the drivers of change in the sector. Furthermore, a review was made of the existing theoretical research on the effects of rail passenger liberalisation, and an economic simulation of the effects of different forms of market opening for at least two case studies of the High-Speed services market. On the basis of the input gathered under these activities, 5 scenarios were examined and compared to a reference scenario (see below). The full open market access option ('competition on the rails'), as well as the option including restricted competition with exclusive rights ('competition for the market') were examined in these scenarios. The provisional results of the extended impact assessment were submitted to a hearing of stakeholders in the railway sector, which took place in December 2003. The comments and observations made during this hearing were subsequently processed in the final report, submitted in January 2004.

An additional source for the assessment of the views and opinions of the most important stakeholder, the general public, were the results of the Eurobarometer survey held in May – June 2003 in the Member States of the European Union.

The reference scenario and its main assumptions

For the modelling exercise, a reference scenario was defined, against which to assess the effects of the various market opening scenarios in 2020, assuming the implementation of the measures in the proposal for a Directive will be carried out in 2010. The reference scenario takes account of the regulatory framework that will apply to Europe's railways for the period under examination; the development and growth of passenger demand until 2020 as well as the possible development of the European infrastructure. As many factors are still uncertain in relation to the regulatory framework, notably in relation to the adoption of a Regulation on public service agreements[32] and a proposal for a Regulation on Passengers' Rights and Obligations in International Rail Transport[33], the following assumptions were made:

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31 EU Passenger Rail Liberalisation: Extended Impact Assessment, by Steer Davies and Gleave, Brussels, January 2004. The full report is available at: http://europa.eu.int/comm/transport/rail/package2003/index_en.htm

32 Amended proposal for a Regulation of the European Parliament and of the Council on action by Member States concerning public service requirements and the award of public service contracts in passenger transport by rail, road and inland waterway, (COM(2002) 107 final — 2000/0212(COD)), **OJ C151E**, 25 June 2002, p. 146. This Regulation must replace Regulation 1191/69. Discussions in the European Parliament have resulted in a high number of amendments proposed on the initial text, and has been stalled to wait for the court ruling in the Altmark case, mentioned above.

33 The improvement of passengers' rights is addressed in the White Paper on European Transport in 2010, and a proposal for a Regulation covering this topic is expected to be adopted in 2004.

1. Operators will be provided with special rights in the case of public service contracts;

2. Protection from competition in the case of a public service contract would be subject to a *de minimis* threshold, expressed in terms of a minimum level of expected revenue abstraction, such as, for example, five per cent of revenue in any one year;

3. Compensation is given in cases where established railway undertakings were affected by subsequent designations of public services and competitive tendering from such services;

4. Railway undertakings will have the right to participate, on non-discriminatory terms in rail passenger ticketing and reservations systems covering international journeys;

5. Passengers will be able to purchase through tickets for international journeys, even if these are to be provided by several, competing railway undertakings;

6. An authorised co-operation between railway undertakings to enable the issuing of such through tickets and the settlement of mutual claims should be operational;

7. There will be no further regulation on rolling stock, other than through emerging case law.

Market opening scenarios can be determined by several factors, such as fares control to be applied; access priorities in case of scarcity of capacity; access conditions for rolling stock; duration of public service agreements and access contracts as well as the level of infrastructure charges. Furthermore, the forms of competition (open access with or without cabotage) that are assumed to emerge and the conditions under which they develop, like demand, service type, operating costs and level of access charges strongly influence the potential number and definition of the scenarios.

It is important to stress in this respect that such an exercise is a model, and can never substitute reality: it will give an indication as to what is most likely to happen assuming that the determinants that are now considered to be the most important are predictable. The outcomes must be interpreted in the light of the uncertainty and error margins that will always apply to this type of analysis. The importance of this reserve is stressed by the robustness of the final results: minor modifications in the assumptions, such as a change in the access charging regime from a mere marginal costs based scheme towards a scheme with additional mark ups for infrastructure scarcity or infrastructure investments dramatically influenced the outcomes of the exercise. Common sense is essential in the assessment of the final results: the size of the railway market in 2020 is as difficult to predict in 2004, as it was difficult in 1988 to predict the structure, size and perspectives of the railway market in 2004.

Five scenarios were selected for the extended impact assessment:

Scenario 1: open access competition for international services with cabotage, with average-cost access charges, five-year agreements for access to the infrastructure, regulated through-ticketing, a limited service offering from the new entrant, and commercial (profit maximising) behaviour on the part of both operators (intended to illustrate the potential impact of new entry on a small scale in the international market under existing access conditions);

Scenario 2: open access competition between two major operators, with marginal-cost access charges, fifteen-year agreements for access to the infrastructure, regulated through-ticketing

and profit-satisfying behaviour on the part of both operators (i.e. a target operating ratio of 1.2 (revenues divided by costs) for both, rather than 1.35 for both in Scenario 1);

Scenario 3: as Scenario 2, but with open access replaced by restricted competition based on big passenger volumes (i.e. concession structures seeking to preserve and expand the network and social benefits of rail);

Scenario 4: as Scenario 2, but with open access replaced by restricted competition based on cash bids, profit-maximising behaviour (target ratio of 1.35) on the part of both operators and no through-ticketing (i.e. concession structures aimed at maximising cash paid to the public sector, and revenue risk transfer); and

Scenario 5: as Scenario 2, but extended to domestic services not covered by a public service agreement.

The possible effects on the following aspects were extensively examined in the framework of this assessment:

- Service levels in different market segments;
- Quality and prices for passengers;
- Passengers carried;
- Modal shift;
- Investment, turnover, profitability and state aids in the industry;
- The environment;
- Market structure;
- Railway safety and passenger security; and
- Employment and working conditions.

In addition, an assessment was made of the behaviour of the different market actors once the market opening was implemented.

The countries under investigation were the EU15 Member States, Croatia, Slovenia, Hungary, Slovakia, Czech Republic and Poland. However, it only covers traffic between these countries and EU Member States plus Norway and Switzerland - domestic traffic within CEEC countries and international traffic between them is not included.

The main results of the extended impact assessment

The main results of the extended impact assessment are given below. For an extensive description of the assumptions made and the results of the modelling exercise, reference is made to the report on the extended impact assessment.

Service and Fares levels

As shown in table 1, service levels will increase under the scenarios 2 (open access and competition between major operators) and 5 (as scenario 2, but including opening of the national markets, as far as these are not restricted by public service agreements), notably in relation to High-Speed and long distance travel.

TABLE 1: SERVICE LEVEL IMPACTS FROM LIBERALISATION SCENARIOS (% CHANGE) COMPARED TO THE REFERENCE SCENARIO

Note: Under scenario 1, long distance High-Speed services on corridors with a high density of traffic and passengers are expected to be 31% lower in 2020 compared to the reference scenario. Conventional short distance services on corridors with a low density of traffic and passengers are expected to disappear under all the scenarios. These services are not commercially viable, and must be organised under public service agreements.

Fare levels will remain practically unchanged under scenarios 2 and 5, as shown in table 2. The scenarios that are most likely to offer sustainable improvements in the scheduled services are 2, 4 and 5.

Service type	Corridor density	Journey length	Scenario 1	Scenario 2 and 5	Scenario 3	Scenario 4
High-speed	High	Long	-31	10	0	3
High-speed	Medium	Long	-31	9	0	5
High-speed	Low	Long	-20	10	0	0
Conventional	High	Long	-25	10	-6	3
Conventional	Low	Long	-11	-20	-10	0
High-speed	High	Short	-57	9	0	0
High-speed	Medium	Short	-40	12.5	0	6
High-speed	Low	Short	-100	-50	0	13
Conventional	High	Short	-52	10	-5	0
Conventional	Low	Short	-100	-100	-100	-100

TABLE 2: FARES LEVEL IMPACTS FROM LIBERALISATION SCENARIOS (%) COMPARED TO THE REFERENCE SCENARIO

Service type	Corridor density	Journey length	Scenario 1	Scenario 2 and 5	Scenario 3	Scenario 4
High-speed	High	Long	29	0	-76	-31
High-speed	Medium	Long	-24	0	-76	-35
High-speed	Low	Long	-29	0	-76	-23
Conventional	High	Long	-15	0	-63	0
Conventional	Low	Long	-56	0	-53	0
High-speed	High	Short	27	0	-57	0
High-speed	Medium	Short	27	0	-57	-9
High-speed	Low	Short	NA	0	-15	-11
Conventional	High	Short	26	0	-29	0
Conventional	Low	Short	NA	NA	NA	NA

Volumes of rail passenger kilometres and train kilometres

Of the five scenarios, Scenarios 2/5 and 3 (open access between matched incumbents and tendering on the basis of bid passengers, both with marginal-cost access) both deliver substantial increases in international passenger volumes in terms of passenger kilometres, as shown in table 3 and table 4.

TABLE 3: PASSENGER-KM IMPACTS AT COMMUNITY LEVEL (%)

Service type	Corridor density	Journey length	Reference volume (bn pax-km)	Percentage change by scenario				
				1	2	3	4	5
High-speed Int	High	Long	**74.1**	-32	81	94	20	81
High-speed Int	Medium	Long	**10.9**	58	79	137	42	79
High-speed Int	Low	Long	**2.3**	84	81	117	-9	81
Conventional Int	High	Long	**8.6**	76	81	15	-42	81
Conventional Int	Low	Long	**4.7**	252	34	4	-29	34
High-speed Int	High	Short	**1.3**	-38	79	16	8	79
High-speed Int	Medium	Short	**0.1**	-88	85	37	90	85
High-speed Int	Low	Short	**0.2**	-100	-13	-56	69	-13
Conventional Int	High	Short	**0.1**	-46	81	-27	27	81
Conventional Int	Low	Short	**0.8**	-100	-100	-100	-100	-100
High-speed Dom	High	Long	**122.8**	<|5|	<|5|	-6	<|5|	81
High-speed Dom	Medium	Long	**20.6**	<|5|	<|5|	<|5|	<|5|	79
High-speed Dom	Low	Long	**8.4**	<|5|	<|5|	<|5|	<|5|	81
Conventional Dom	High	Long	**18.1**	<|5|	<|5|	<|5|	<|5|	81
Conventional Dom	Low	Long	**18.4**	<|5|	<|5|	<|5|	<|5|	34
High-speed Dom	High	Short	**17.4**	<|5|	<|5|	<|5|	<|5|	<|5|

Scenario 1, with higher cost access, shorter contracts and more limited market entry, would have much more mixed effects. Scenario 4 would imply relatively small service level improvements and hence encourage more modest passenger growth from selective fares reductions.

TABLE 4: TRAIN-KM IMPACTS AT COMMUNITY LEVEL (%)

Service type	Corridor density	Journey length	Reference volume (mn train-km)	Percentage change by scenario				
				1	2	3	4	5
High-speed Int	High	Long	138.9	-31	10	0	3	10
High-speed Int	Medium	Long	35.4	-31	9	0	5	9
High-speed Int	Low	Long	17.7	-20	10	0	-12	10
Conventional Int	High	Long	64.3	-25	10	0	3	10
Conventional Int	Low	Long	134.9	-11	-20	-10	0	-20
High-speed Int	High	Short	5.1	-57	9	0	0	9
High-speed Int	Medium	Short	0.5	-40	13	0	6	13
High-speed Int	Low	Short	1.7	-100	-50	0	13	-50
Conventional Int	High	Short	1.6	-52	10	0	0	10
Conventional Int	Low	Short	30.3	-100	-100	-100	-100	-100
High-speed Dom	High	Long	281.2	0	0	0	0	10
High-speed Dom	Medium	Long	84.5	0	0	0	0	9
High-speed Dom	Low	Long	71.1	0	0	0	0	10
Conventional Dom	High	Long	156.7	0	0	0	0	10
Conventional Dom	Low	Long	387.0	0	0	0	0	-20
High-speed Dom	High	Short	45.6	0	0	0	0	0
High-speed Dom	Medium	Short	3.6	0	0	0	0	0
High-speed Dom	Low	Short	15.6	0	0	0	0	0
Conventional Dom	High	Short	107.4	0	0	0	0	0
Conventional Dom	Low	Short	364.9	0	0	0	0	0
Totals			**1,948.0**	**-6**	**-2**	**-2**	**-1**	**-3**

As far as train kilometres are concerned, it can be seen that, of the five scenarios, Scenario 1 would result in reduced train-km at Community level due to the significant reductions in international services. The other scenarios have, in net terms, more modest overall impacts, but all would see the short-haul international services on the conventional network exposed to severe pressure if cross-subsidies were removed. Indeed, a number of such services are already only operated with public funding support. The table indicates that for higher-density high-speed corridors, overall volumes of service **increase** under open access.

Rail modal share

Scenarios 2 and 3 lead to significant overall increases in international passengers and they have a modest positive impact in improving rail's total market share, as shown in table 5 (although, due to the balance between domestic and international rail passengers, this is muted). When the domestic markets are included in the scope of market opening (Scenario 5), the total impact on modal share is of course more significant. Scenario 1 worsens rail's slightly share. It can be seen that both car and air are significant modal competitors at the margin in these markets (with air focused on long-haul, and car short-haul).

TABLE 5: IMPACT ON RAIL MODAL SHARE AT COMMUNITY LEVEL (%)

Mode share	Reference scenario (absolute share %)	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Rail	11	-0.2	2.4	2.5	0.6	6.6
Car	60	0.1	-1.0	-1.3	-0.3	-2.8
Air	29	0.1	-1.4	-1.1	-0.3	-3.7
Total	**100**					

Turnover

A combination of international service reductions and selected fares reductions arising from open access competition would result in very significant reductions in turnover. In contrast, in Scenario 2, where more balanced competition results in increased service levels and ridership, with similar fares to the reference scenario, turnover increases in most international segments opened to competition– with the exception of the vulnerable conventional short-haul segment, where the majority of existing services are not commercially sustainable.

TABLE 6: TURNOVER IMPACTS (%)

Service type	Journey length	Reference scenario (total € bn)	Percentage change by scenario				
			1	2	3	4	5
High-speed Int	Long	8.0	-20%	10%	-56%	0%	10%
Conventional Int	Long	4.3	-8%	13%	-20%	7%	13%
High-speed Int	Short	0.4	-60%	16%	-68%	1%	16%
Conventional Int	Short	0.8	-95%	-88%	-93%	-89%	-88%
High-speed Dom	Long	9.2	0%	0%	0%	0%	28%
Conventional Dom	Long	21.4	0%	0%	0%	0%	27%
High-speed Dom	Short	1.6	0%	0%	0%	0%	0%
Totals		**45.6**	**-8%**	**2%**	**-14%**	**-1%**	**18%**

Scenario 3, which would encourage high levels of fares competition, would result in significant reductions in revenues. Where cash bids are instead invited, more balanced commercial strategies would allow international revenues to be sustained and increased, except for the vulnerable short-haul conventional segment. In Scenario 5, the effects on international revenues are the same as Scenario 2, but the extension of open access to domestic services results in revenue increases in the long haul sectors, and thus significant increases for the industry overall.

Profitability

The operating costs of railway undertakings will be impacted by market opening in two ways:

– From variations in their unit costs, arising from, for example, competitive market entry and regulatory policy decisions; and

– From variations in volumes (train-km) arising from market opening.

The reductions in costs are outweighed by reductions in revenues in Scenario 1, where open access results in a small loss of profitability overall. In contrast Scenario 2, with open access generating additional passengers and revenues in the international segments, coupled with reduced access charges, results in increased profitability there. Similar patterns are extended into the domestic segments in Scenario 5.

TABLE 7: OPERATING COST IMPACTS (€ BILLION)

Market	Cost	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
International	Infrastructure	-1.4	-4.1	-4.1	-4.1	-4.1
	Other	-1.3	-0.5	-0.7	-0.4	-0.5
	Total	**-2.6**	**-4.7**	**-4.8**	**-4.5**	**-4.7**
Domestic	Infrastructure	0.0	0.0	0.0	0.0	-9.9
	Other	0.0	0.0	0.0	0.0	0.1
	Total	**0.0**	**0.0**	**0.0**	**0.0**	**-9.8**

(Note: Rounding errors might occur)

The large fares reductions assumed under Scenario 3 result in profit reductions under this scenario, while Scenario 4, with a more balanced tender structure, would improve international passenger service profitability, as the assumed efficiency gains from new entry and lower access charges increase margins on international services, as shown in table 8.

TABLE 8: PROFITABILITY IMPACTS (€ BILLION)

Market	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
International	-0.3	5.4	-1.5	4.2	5.4
Domestic	0.0	0.0	0.0	0.0	16.3
Total	**-0.3**	**5.4**	**-1.5**	**4.2**	**21.7**

Investments

Investment in the rail industry is focused on two major asset categories: rolling stock and infrastructure.

The need for rolling stock is reduced, although in Scenarios 2 and 5, where the commercial activity on the high-speed lines is encouraged by open access, investment in high-speed rolling stock increases, as shown in table 9. The simulated reductions in train-km in some market segments (particularly on the conventional network) arise because the services concerned would be reduced in response to fully commercial incentives; in practice some of these services are likely to be retained through public service contracting, implying that the net investment impacts would be more muted.

TABLE 9: INCREMENTAL ROLLING STOCK INVESTMENT (€ BILLION)

Stock type	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
High-speed	-0.5	0.2	0.0	0.0	0.5
Conventional	-0.5	-0.4	-0.4	-0.2	-1.0
Total	**-1.0**	**-0.2**	**-0.4**	**-0.2**	**-0.5**

For infrastructure, the situation is more complicated, in that investment in new rail infrastructure capacity and capability is funded in a multiplicity of ways throughout the Community, and is likely to continue to be so under all market opening scenarios. Further:

– Much of the high-speed infrastructure investment currently being undertaken is not expected to be fully remunerated by access charges paid by railway undertakings, due to the significant social and other economic benefits included within the supporting investment cases concerned;

– In significant parts of the Community's rail network, surplus infrastructure capacity is or will exist, such that policies aimed at recovering sunk capital costs from railway undertakings are likely to be economically inefficient (even if they are necessary for budgetary purposes).

It follows that changes in service patterns arising from market opening may often not, by themselves, "cause" or fund infrastructure investments that may be planned and supported (by commercial services and/or taxpayers) in any event. Indeed, new entrants will typically focus on operating services where there is spare capacity.

Nevertheless, some scenarios could give rise to significant changes in service patterns in some market segments on some corridors. Indeed, effective open access can require surplus infrastructure capacity, and therefore some variations to infrastructure capacity investment would be appropriate to support market opening where the associated train-km changes are expected to be significant, even if such investment changes are justified (as now) on wider economic grounds, and **not** fully funded by the railway undertakings themselves. This would be the case in countries committed to full marginal social cost pricing of transport infrastructure for example. The lower volumes of train-km under Scenario 1 would imply a significant reduction in the investment needed in infrastructure, while less significant net effects could be expected in other scenarios, with the growth in the high-speed services and infrastructure offsetting reductions in the conventional network in Scenarios 2 and 5.

TABLE 10: INCREMENTAL INFRASTRUCTURE INVESTMENT (€ BILLION) PER SCENARIO

Infrastructure type	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
High-speed	-0.9	0.3	0.0	0.1	0.8
Conventional	-0.6	-0.5	-0.4	-0.3	-1.2
Total	**-1.5**	**-0.2**	**-0.5**	**-0.2**	**-0.3**

(Note: Rounding errors might occur)

State aids impacts

Market opening could be expected to have at least some of the following impacts on state aids being paid to the industry under the reference scenario:

- Increasing the state aids paid for the operation of a given level of services under a pubic service agreement, as a result of existing cross-subsidies from liberalised services being removed;
- Reducing the state aids currently paid for (to-be) services that will be opened, where these are currently subsidised, as a result of efficiencies introduced by competition. Depending on the structure of market opening, some of the relevant benefits could be passed to the public sector (versus passengers), via concession fee and/or higher access charge payments;
- Changing the financial position of the infrastructure manager, and hence the level of state funding required for it, through changes in the structure and flow of access charges and infrastructure costs;
- Altering the balance of infrastructure investment that can be undertaken and underwritten within the industry from passenger receipts (potentially via access charges), versus the investment that is undertaken or underwritten directly by the state.

TABLE 11: ESTIMATED NET STATE AID IMPACTS (€ BILLION) PER SCENARIO

Impacts from	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
International services	1.6	-1.3	5.6	-0.1	-1.3
Domestic services	0.0	0.0	0.0	0.0	-6.4
Total	**1.6**	**-1.3**	**5.6**	**-0.1**	**-7.7**

The profitability reductions in Scenario 1 would potentially result in an increase in state aids, if the industry's financial position was to be compensated. In contrast, Scenarios 2 and 5, while involving significant reductions in infrastructure access charges, would reduce net state aids because the profitability increases that are assumed would more than offset these reductions. Less significant reductions would result from the service profitability.

Environmental and other external cost impacts

As the number of train-km does not increase under the scenarios, and indeed reduce significantly under Scenario 1, the incremental passengers generated from market opening do not increase the external costs on rail overall. However the reduced passenger volumes for air (and for Scenario 3, for car) reduce the external costs involved for the modal alternatives, leaving material reductions in external costs under Scenarios 2, 3 and 3.

TABLE 12: ESTIMATED REDUCTIONS IN EXTERNAL COSTS (%), PER SCENARIO

TABLE 12: ESTIMATED REDUCTIONS IN EXTERNAL COSTS (%), PER SCENARIO	Reference scenario (€ billion)	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Impact						
Rail	6.7	-6	-2	-2	-1	-3
Car	156.0	0	0	-1	0	0
Air	41.5	0	-3	-3	-1	-9
Total	**204.2**	**0**	**-1**	**-2**	**0**	**-2**

While these environmental impacts are clearly significant in some scenarios, they should not be viewed as constituting the primary economic case for market opening. In particular, the wider economic benefits (and costs) of changes to rail transport levels in different markets in different parts of the Community vary significantly, and typically rest on variable factors such as the social value of travel time, regional economic regeneration, and improvements to accessibility and mobility.

Market structure impacts and incumbents' responses

The limited number of new entry being modelled under scenario 1 is more successful on the commercially viable longer haul routes, where limited frequency is less of a relative disadvantage. By assumption, new entry in Scenarios 2 and 5 remains at 50% where it is sustainable, in the longer distance and higher density markets.

In the tendered scenarios, the new entrant is successful in some market segments but not others, and is relatively more successful in the cash bidding Scenario 4.

TABLE 13: IMPACT OF NEW ENTRY IN LIBERALISED INTERNATIONAL MARKETS (%)

Service type	Corridor density	Journey length	Scenario 1	Scenarios 2 &5	Scenario 3	Scenario 4
High-speed	High	Long	9	50	0	0
High-speed	Medium	Long	7	50	100	100
High-speed	Low	Long	13	50	0	100
Conventional	High	Long	13	50	0	100
Conventional	Low	Long	11	0	100	0
High-speed	High	Short	5	50	100	100
High-speed	Medium	Short	5	50	0	100
High-speed	Low	Short	0	0	0	100
Conventional	High	Short	6	50	0	0
Conventional	Low	Short	100	0	0	100

This analysis does not take into account the potential effect of new service offerings emerging under market opening. In practice new services could constitute a significant element of the total market structure impacts arising from market opening as the latter creates a dynamism that could generate new types of services, such as:

- New origin-destination pairs being served (subject to the availability of appropriate infrastructure capacity);
- Different combinations of service quality/cost offering on existing rail routes (e.g. "low cost" services with limited frequencies, point-to-point operating patterns, and limited ticketing interavailability); and
- More advanced multi-modal integration, whereby by operators in other modes (e.g. airlines and airports) invested in rail services to broaden their own service offers;
- Development niche markets in occasional transport.

Incumbents could respond in very different ways, depending on the national structure of their "home" markets and industries, their own corporate and strategic objectives, and national policies towards the encouragement of more pluralistic rail sector provision. The likely range of responses can perhaps be illustrated best by exemplifying two extremes:

- On the one hand, national undertakings which are currently dominant in the relevant national public service agreement markets (e.g. SNCF and Trenitalia) may become less so over time (as has occurred in Germany and Sweden) but are unlikely to lose their majority share of these markets in the foreseeable future. On this basis, they will be in a strong position to compete for the parallel opened markets in core scheduled services (typically using the same rolling stock and drivers, ticketing and branding, etc). They will seek opportunities for cooperative alliances for international market entry, and would be prepared to tolerate some degree of niche market development by entrants;

– On the other hand, undertakings which generate less of their total profit from national public service agreements markets and therefore become potentially more reliant on growth opportunities in opened markets across the Community (such as individual UK franchise operators, SJ AB in Sweden, etc) may seek a broader-based entry to new geographic areas, based on strategies of bidding for concessions under public service agreements in parallel to exploitation of opened market opportunities in the geographies concerned.

Regardless of whether incumbents' competitive responses are primarily defensive or aggressive however, they are most likely to continue to be driven by developments in the larger markets regulated by public service agreements, as has been seen in Europe to date. While uncertainty over the latter remains, it will continue to be difficult to predict the exact additional stimuli to market structure evolution provided legal changes in the opened markets at EU level.

Safety and security impacts

Market opening is unlikely to have a significant impact on either the safety or the security environments in which European passenger train services operate. The most common competitors in any scenario will be current operators. These are well aware of the safety requirements of rail operation and have stringent safety regimes of their own. These are unlikely to change as a two-tier approach to safety is virtually impossible to operate (i.e. different standards for the new opened services). Both at the national and the European level there are detailed safety standards relating to rail operations[34], these will have to be adhered to irrespective of who the operator is, according to this Directive.

Similarly with security, the line infrastructure, rolling stock and stations are not likely to change under a market opening regime and will be policed and maintained by the current operators and infrastructure managers.

Employment impacts

The impact analysis suggests that market opening of international services could generate some direct employment in additional train crew to operate the additional services concerned, as long as existing loss-making services were protected, even taking account of the assumption that market opening could stimulate productivity improvements of up to 20% in train service operations by new entrants.

While the net employment changes are therefore likely to be relatively modest in the context of current EU employment in the rail industry (including train manufacturers employment in the accession countries), the positive impacts identified that could occur are significant enough to support the premise that market opening need not reduce overall employment in the industry (assuming that productivity improvements from more general industry restructuring etc would be common to the reference scenario and all scenarios).

In addition, it is assumed that in all scenarios additional regulatory protection for passengers would be provided for, particularly in respect of international services covered by the proposed Regulation on passengers' rights. These will import additional costs and economic

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[34] Proposal for a Directive of the European Parliament and of the Council on safety on the Community's railways, COM (2002) 21 of 23 January 2002, which is an important part of the second railway package.

activity to support the rail service "product" (including call centre employment to handle customer complaints and disrupted journeys, assistance to be provided to persons with reduced mobility, etc).

There remains the issue of terms and conditions of employment, which employees' representatives have made clear often come under threat following market opening. However, such concerns are potentially misplaced in the existing context as:

– Productivity improvements will seldom be enabled by worsening terms and conditions of employment, in an industry that will remain heavily reliant on the quality and effectiveness of its staff. On the contrary, the rail industry will need to continue to "raise its game" to remain modally competitive in quality of passenger service if it is successfully to win market share from air and private road transport as has been envisaged in the impact analysis;

– Many services will only be economically provided in tandem with services provided under public service agreements, utilising the same equipment, systems and staff resources flexibly and efficiently to deliver a portfolio of service offerings. It follows that many of the staff affected will have terms and conditions determined by the wider structure of operations undertaken by the undertakings concerned;

– Any significant growth in the rail sector through market opening is likely to lead to an initial shortage of skilled personnel, which might in the short term actually raise the price paid for these resources. Longer term it should lead to an increase in skills training and recruitment – both of which have a positive impact on the relevant national economies.

Where there is a radical change, for example the emergence of a "low cost volume operator" (the "Ryanair of the rails") it is likely that most of the growth will be generated from new markets as opposed to those currently travelling by rail. This should increase the number of jobs (although, admittedly, not necessarily at the pay rates and conditions provided by the major national rail incumbents), which should be a positive move for national economies and also the customers of these services.

One scenario which could have a short-term negative employment impact is the situation where two or more of the current major rail operators take each other on in their home markets. This will lead to a focus on efficiencies by all players and may lead to reductions in historic terms and conditions. However, this pressure could also independently come from other sources, for example the relevant governments not having the funds to support the current level of rail subsidies, or awarding authorities putting out rail services to competitive tender. Market opening in this area may change the timing of these personnel changes but are unlikely to be creating a unique environment.

Stakeholder analysis

The stakeholder analysis involved four major groups of actors:

1. Pan-European associations of railway undertakings and infrastructure managers, supply industry, trade unions, passenger and consumer organisations;

2. Organisations within on of the countries selected for a case study (ministries, infrastructure managers, railway undertakings, regulatory bodies, etc.);

3. Transport Ministries in the 25 countries (EU, Accession countries with railways, Norway and Switzerland).

The stakeholders were consulted on their attitudes towards market opening; its driving forces and the opportunities and constraints created by a further market opening. The main results of this consultation show that there are wide-ranging views, but some common themes occur at regular intervals. There is a broad support for a properly targeted market opening for passenger transport operations, which is clearly expressed for example by the position paper issued by the Community of European Railways.

Only a limited number of respondents estimated that market opening was not beneficial, though a clear variance occurred as to what services should be opened for competition, and whether or not the management of the infrastructure should be tendered.

The primary benefits expected from the introduction of new services and improved service quality, notably in relation with the adoption of a Regulation on Passengers' Rights and Obligations are expected to be an increased market share; the opportunity to offer new services; a clear incentive to provide passenger services with an improved service quality level and, to a lesser extent, more consistent technical standards. The latter is important as rolling stock costs represent a significant part of the total operating costs, whereas the lack of standardisation within this market does account for the rather high price levels for purchasing or leasing rolling stock.

Significant constraints are perceived in a range of areas, such as the legal and regulatory framework; the political background; the technical state of the infrastructure; the availability of funding for investments and the market organisation and structure itself.

There are some areas where there are strong differences of opinion over the benefits of market opening: some of the stakeholders, notably the trade unions believed that railway safety, quality of service levels and the workers' environment would suffer from market opening.

It is important to observe though that the supporters of market opening fully acknowledge that an appropriate regulatory framework will be needed, notably in order to preserve non-commercial, social rail services, within the framework of public service contracts and obligations. They also indicate that there shall be no compromises made in relation to railway safety. A similar finding can be observed in the results of the Eurobarometer survey, where 71.5% of the respondents agreed to the statement that competition is the best way to make the railways more efficient, provided safety standards are met. 70% of the respondents agreed to the statement that low cost carriers should be able to operate international train services, if they comply with strict rules.

The stakeholders surveyed in the extended impact study also indicated that passengers needed appropriate levels of protection from potential disadvantages of market opening, notably in relation to the potential disappearance of networks and the advantages associated with services offered within a comprehensive network. A partial market opening could be difficult even given the complexity of rail operations.

Finally, market opening can not be successful without a level playing field and strict guarantees that this can be maintained by dispute resolution mechanisms, provided by regulatory bodies for example.

Main conclusions

The main conclusions from the modelling exercise and the stakeholder analysis can be summarized as follows:

– The proposed market opening scenario, free access for railway undertakings to the Member States' network in order to provide international services, including cabotage, will be beneficiary, under a number of assumptions spelled out in scenario 2 of the modelling exercise;

– The contemplation of market opening measures - particularly for an industry as complex, diverse, and politically-influenced as the European railways – must rely on qualitative judgements rather than firm predictions of quantitative impacts. Indeed, one of the major benefits of competition is the induction of new behaviours and products into an industry, which policy-makers cannot anticipate in detail;

– The key change introduced by a new (amended) Directive would be to allow all appropriately licensed railway undertakings (and not just international groupings, as under 91/440) to operate international passenger train services anywhere in the Community;

– For the majority of the international passenger services in Europe, cabotage access (the right to transport passengers on an international services between 2 stations in the same Member State) to domestic passenger flows is essential to sustain a commercially viable rail service;

– This is confirmed by the analysis based on the modelling exercise carried out for origin-destination links similar to the Brussels-Cologne link. If new entrants were denied access to cabotage, their competitive offer would be fatally undermined and no stable open access outcome could be reliably envisaged, even when infrastructure access charges (and hence the attractiveness of rail) was improved. Some very limited international service competition of course exist under the existing European legal framework, but precluding cabotage is likely to heavily constrain further new entry and render the benefits of additional European legislation difficult to justify;

– The indicative results of the impact analysis confirm that market opening may lead to significant changes in service and fares levels, with impacts on state aids and investment. While, overall, this could lead to increased rail use and economic efficiency in the Community in the longer term, there will be "winners and losers" in respect of existing stakeholders in the industry, as cross-subsidies are removed, service patterns changed and (often) fares increased towards commercial levels;

– The decisions affecting the market opening of domestic services may need to remain the province of Member States, under subsidiarity principles. From a practical level, it remains impossible to predict with accuracy the effects of domestic open access while the interpretation of the EU acquis on the procurement of public services remains the subject of legal and policy debate: the future market for public service agreements as defined in the reference scenario is in practice a matter of conjecture. Given this, it would be imprudent to introduce European legislation requiring the full market opening of domestic passenger markets until at least the situation regarding the Regulation on public service agreements and contracts, as well as the implications of any changes to the *status quo*, have been fully evaluated and

resolved. Clarity in this area must be reached before further market opening is implemented: to open the domestic rail market within an uncertain environment could be more damaging than continuing with the *status quo;*

– Railway undertakings must have access to reservation and information systems for through ticketing and associated revenue allocation arrangements. These can have a significant impact on the commercial position of new entrants, in terms of their ability to replace and improve existing frequencies for passengers. From both the entrants' and passengers' perspectives, regulation of ticketing would be an essential adjunct to international liberalisation;

– The impact assessment showed that on some parts of the network, open access would be viable with infrastructure charges that recovered fixed costs as well as marginal or variable costs. However, as with freight, the prospects for a dynamic and growing market would be significantly improved with marginal cost-based charges;

– The modelling exercise confirmed that in markets requiring customised assets with long lives, efficient new entry will often be difficult to sustain without secure infrastructure access over extended periods, within which the risks of dedicated rolling stock, training, branding and marketing, etc. can be spread and managed. Directive 2001/14 provides for the possibility to conclude framework agreements for access to the infrastructure for a period of 5 years. Longer periods than five years shall be justified by the existence of commercial contracts, specialised investments or risks. In exceptional cases, article 17.5 allows an extension for more than 10 years, in particular, where there is large-scale, long-term investment, and particularly where such investment is covered by contractual commitments. This underlines the need for a functioning rolling stock leasing market;

– Implementation of additional legislative provision in order to ensure open access for rolling stock would be unnecessary: the market should be allowed to adapt, and existing competition regulation should act to prevent conduct abuses within this changing market environment. However, while the existing situation of incumbents' dominant positions persists, there may be value in supporting the effective application of conduct-based competition regulation with regulatory provisions requiring additional transparency in the relevant circumstances.

Section 7: Implementation, Monitoring and Evaluation

– The amendment of Directive 91/440 by Directive 2001/12 contained a provision[35] requesting the Commission to make the necessary arrangements to monitor technical and economic conditions and market developments of European rail transport, notably in view of the preparation of a report to be submitted to the European Parliament and the Council on the implementation of the Directives of the infrastructure package[36].

In order to comply with this provision, the Commission has set up a Working Group under the advisory committee created by Directives 2001/12 and 2001/14 to enable a comprehensive monitor of all relevant aspects of the rail markets in the EU. The main stakeholders in the railway sector have been invited to join this Working Group, and to provide relevant information concerning the sectors they represent. The information gathered within this monitoring scheme should allow an answer to basic questions, such as:

- Has the rail sector increased its modal share in relation to other transport modes?
- Can new operators easily enter the rail market and does competition start to emerge in the rail markets?
- Do prices for services decrease and/or do service levels (punctuality) increase?

Until now, the main focus of the activities undertaken within this framework is to make an overview of the applicable legislation at EU level, and the implementation legislation in the Member States. Furthermore, a systematic overview is provided of all the railway undertakings that have received a licence under the conditions set out in Directive 2001/13. The monitoring scheme also contains statistical information from several sources, such as Eurostat; press reviews and releases from railway undertakings and the results of studies requested by the Commission and carried out by external consultants[37].

This proposal for a Directive contains a provision requesting the Commission to submit a report to the European Parliament and the Council on the implementation of this Directive on 31 December 2012 at the latest, 2 years after the final date for implanting its provisions. Within the framework of the Railway Market Monitoring Scheme, it is foreseen to continue to monitor all the relevant aspects of this railway market, which includes, obviously, the passenger market. This monitor will not only consist of a mere registration of volumes, such as the number of passenger kilometres or passenger train kilometres, but will also address quality issues, such as punctuality of (international) services, the number of cancelled services and the number of complaints. It will further monitor the number of services; fare levels; user satisfaction levels and other trends that are of relevance to this particular segment of the rail market. The stakeholders, and it particular the railway undertakings and passengers organisations, will be invited to contribute to this, as they are well situated to provide essential data for this monitoring, and since they have a crucial interest in this process as well.

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35 Article 10b of Directive 2001/12 of 26 February 2001 amending Council Directive 91/440/EEC on the development of the Community's railways, OJ L75 of 15 March 2001

36 Directives 2001/12, 2001/13 and 2001/14 of 26 February 2001, OJ L 75 of 15 March 2001.

37 More information can be found on: http://europa.eu.int/comm/transport/rail/market/index_en.htm

Section 8: The proposal and its justification

The proposal for which this extended impact assessment has been carried out will be an amendment of Directive 91/440 and will only contain 4 articles. The definition of an international service will be included in the Directive, and is similar to the definition used in the Passengers' Rights and Obligations Regulation.

The essential part of the proposal is the section where railway undertakings will be granted access to the rail infrastructure of other Member States in order to operate international passenger services, with the right to cabotage. Origin-destination pairs for which a public service agreement has been concluded under the conditions set out in Regulation 1191/69 may be excluded from the scope of the Directive. This restriction though shall not limit the right of railway undertakings to embark and disembark passengers at stations located on a link served by an international service, including between stations located in one Member State.

The main differences compared to the current regulatory consist of the abolition of the requirement that railway undertakings have to form an international grouping with another railway undertaking in order to operate international services as well as the inclusion of the right of cabotage on the international links.

The third relevant provision in this proposal is the obligation to report on the implementation of the proposal at the latest on 31 December 2012, 3 years after the latest opportunity for the Member States to implement the provisions of the proposal.

The final provisions relate to the entry into force of the directive the formal date of its implementation in the Member State. The implementation period has been set at 18 months.