FINAL

Efficiency gains from integration: parallels in the transport industry

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EXECUTIVE SUMMARY

This paper examines aspects of the European Commission's (EC's) competition policy approach in the transport industry, and contrasts this to its proposed approach to set maximum prices for international roaming in mobile telephony.

In transport, the EC has pursued a competition policy founded on the need to improve the interconnectivity of international networks, network interconnectivity being a stated objective of the European Treaty. Consistent with that policy, the EC has permitted integration in the form of alliances, joint ventures and mergers, especially in the airline and rail transport sectors, as well as in intermodal transport, between firms with largely complementary geographic footprints.

Economic theory suggests that mergers of this type are likely to generate efficiency gains, including by removing the problem of "double marginalisation". Although potentially increasing firm profits, economists view the removal of double marginalisation to be unambiguously welfare enhancing, as it also leads to lower prices for consumers. EC determinations, particularly in relation to airline alliances, are generally consistent with this economic theory.

Thus, in transport, the EC's approach appears to be one of prioritising the interconnectivity and interoperability benefits, applying minimal regulation except where essential facilities are used, then permitting competition between more geographically integrated firms to generate efficiencies, reduce margins and deliver consumer benefits.

This direct competition is a recent development. Traditionally, European transport and logistics markets were segmented on national lines. High prices were charged on transactions across boundaries and most notably when the goods being transported were handed off from one transport entity to another. Those high prices reflected high margins being earned on that transport, as each of the transport entities involved separately marked-up its leg of the transport task.

As the internal market has been opened up, new forces have come effectively into play. The internalised margins from integration have created the incentive to construct and improve transnational networks, as well as the incentive for new integrated players to contest those transnational transport markets. In other words, firms now have the incentive to capture and keep the efficiency gains from integration, and use them to compete. An examination of airline, rail and maritime sectors demonstrates that firms do respond to these incentives, and the EC has approved of – and, indeed, encouraged and facilitated – this type of conduct.

An alternative policy of primarily pursuing price regulation could have been applied by the EC in transport, in order to directly reduce perceived high margins (or force firms to address perceived high costs). However, rather than encourage firms to compete on a transnational basis, such a policy would be more likely to lessen firms' incentives to capture the efficiency gains through integration across country borders. This is because direct regulation to reduce margins will also reduce the incentive to capture those margins, all other things being equal.

The transport industry provides an interesting parallel to mobile telephony. While they are not identical industries, both are network industries where coverage is important, and where the problem of double marginalisation can occur in cross-country transactions. Moreover, these industries appear to share broadly the same regulatory objective: to development more efficient, pan-European networks and services.

The EC stance on international roaming for mobile telephony appears to conflict with its approach on transport. The proposal to cap international roaming rates at the domestic roaming levels is designed to deliver immediate price and margin reductions. But it is at odds with the approach taken in transport: an approach that allows firms to capture efficiencies (including those that come from the elimination of double marginalisation) through integration, thus encouraging transnational competition that, over time, can and will create sustainable downward pressure on prices and margins.

Instead of directly attacking perceived high margins through price regulation, the EC could potentially achieve more sustainable pressure on margins by encouraging the conditions for them to be competed away. Indeed, there is a risk that the former approach, by taking away the rewards of integration, may make the latter more difficult to achieve.

1. INTRODUCTION

This report evidences recognition that cross-country integration in the European transport sector has led to efficiencies in supply, leading to consumer benefits – and the nature and extent of these efficiencies and consumer benefits.

These issues are considered here against the backdrop of expressed concerns about the situation in mobile telephony: a situation in which prices are typically higher for cross-border service (especially roaming) than for services provided entirely within an EU Member State. There are relevant parallels between this situation and that which market forces – most notably cross-border integration – are now redressing in the EU transport and logistics industry.

In exploring these themes, this report considers the following:

- Whether firms have sought to engage in such integration, thereby recognising the potential for efficiencies in supply;
- Whether the EC has authorised proposals by firms to integrate, indicating that it recognises the potential for efficiencies in supply and consumer benefits; and/or
- Whether general initiatives or adopted policies that have been undertaken within the European Community in respect of the European transport sector recognise the potential for these efficiencies and consumer benefits.

The remainder of this report is set out as follows:

- Section 2 provides a brief theoretical discussion as to why one might expect cross-country integration within and across transport sectors to generate consumer benefits.
- Section 3 summarises current EC views concerning integration of transport and logistics within and across modes, and the initiatives it has undertaken in light of these views.
- The remaining sections evaluate the extent to which efficiencies and consumer benefits have been recognised by the EC and by firms engaging in integration, both within and across the following transport sectors:
    - Airlines (section 4);
    - Rail (section 5); and
    - Maritime (section 6).
- A final section draws some parallels and contrasts between these developments and those underway in mobile telephony.

2. THEORETICAL BASIS

2.1. INTRODUCTION

This section contains a brief theoretical discussion as to why one might expect cross-country integration within and across transport sectors to generate consumer benefits. In short, integration within and across transport sectors could be expected to generate consumer benefits from a range of factors, including the following:

- Removal of “double marginalisation”, which will lead to lower prices for consumers even if integration leads to no cost efficiencies;
- Cost savings, at the very least in terms of savings administrative and overhead costs, but also potentially in terms of operating assets; and
- Enhanced connectivity, including improved scheduling (leading to reduced travel/delivery times) and new direct services.

The remainder of this section discusses theoretical aspects of “double marginalisation”, in particular, why this can arise in the absence of integration, and how this “negative externality” is internalised when firms engage in coordinated pricing.

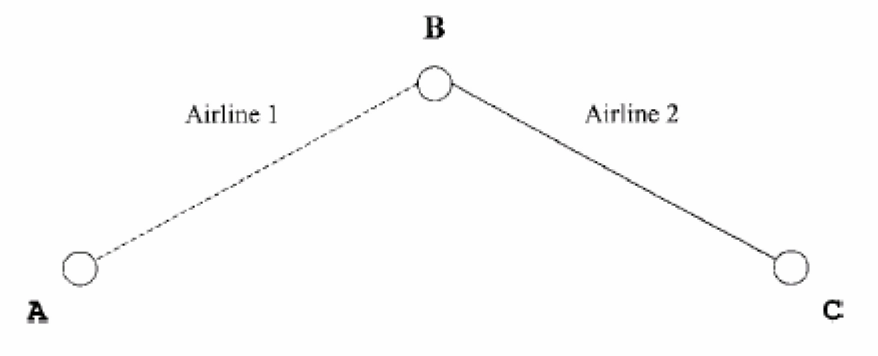
2.2. DOUBLE MARGINALISATION

Brueckner (2003) explains double marginalisation[1] in the context of airline markets (although it is applicable to other transport sectors) and ‘horizontal’ integration of complementary networks (although it could equally be applied in analysing integration across complementary ‘vertical’ stages of production).

The model considers a route AC, which is comprised of two segments AB and BC. Airline 1 serves Segment AB, and Airline 2 serves Segment BC.

1 Jan K. Brueckner, “International airfares in the age of alliances: the effects of codesharing and antitrust immunity”. *The Review of Economics and Statistics*, February 2003, 85(1): 105–118.

Figure 1: Illustration of Interline Route



Source: Brueckner (2003), p. 106.

The model makes certain assumptions, which simplify the analysis, including the following:

- Symmetry in segment lengths AB and BC.
- Constant returns to scale, with a constant per passenger cost, denoted $\mathbf{c}$.
- Fares can be set independently across city-pairs.

There is a travel demand function **D(.)** for AC, which depends on the combined subfares set by Airline 1 for Segment AB and Airline 2 for Segment for BC. There are two types of fare-setting: cooperative and non-cooperative.

Under non-cooperative fare-setting, Airline 1 sets its subfare for Segment AB to maximise its individual profit. This is given by:

$$(\mathbf{s}_{\mathbf{AB}} - \mathbf{c})D(\mathbf{s}_{\mathbf{AB}} + \mathbf{s}_{\mathbf{BC}})$$

where denoted $\mathbf{s}_{\mathbf{AB}}$ is the subfare of Airline 1 on Segment AB and $\mathbf{s}_{\mathbf{BC}}$ denotes the subfare of Airline 2 on Segment BC. Airline 2 undertakes a similar profit maximisation, again to maximise its individual profit. Note that the optimal subfares will be less than the standalone fares in city-pair markets. Otherwise, passengers would simply purchase individual tickets for AB and BC.

Under cooperative fare setting, the two firms set the overall fare to maximise joint profits, and then split the profit. The combined profit function is denoted as:

$$2(\mathbf{p}_{\mathbf{AC}}/2 - \mathbf{c})\mathbf{D}(\mathbf{p}_{\mathbf{AC}})$$

Solving the first order conditions[2] under non-cooperative and cooperative fare-setting, one finds that, mathematically, fares will always be higher under non-cooperative fare setting. The intuition is described as follows:

- With non cooperative behaviour, each airline ignores the negative effect on the other airline's profit from an increase in its own subfare.
- That is, each airline ignores the fact that when it increases its own subfare, it increases the overall fare, depressing traffic in the market.
- Because each airline ignores the negative externality it imposes on the other, each subfare is set too high, leading to an overall fare that is excessive.
- Cooperative behaviour internalizes the externality, so that a lower fare is chosen.

Brueckner and Whalen (2000) contains a more sophisticated illustration of the double marginalisation problem than Brueckner (2003), although the central finding is still the same. That is, absent coordination, an increase in the first airline's subfare depresses the second airline's profit, by reducing traffic in the market – the first airline has no incentive to take this negative externality into account. Coordination under an alliance causes the externality to be internalised, moderating the first airline's pursuit of a higher fare.[3]

In short, when end-to-end charges are set on a segment-by-segment basis, with each segment being controlled by a different entity, overall prices will be too high, damaging both consumers and shareholders. This creates a profit opportunity for a firm that can secure end-to-end control of the price setting process, as such a firm will be able both to lower prices to consumers **and** increase profits for shareholders.

As a result, so long as such integration is possible, it can provide a market antidote to the excessive pricing which segment-by-segment control would otherwise give rise to.

2 That is, profit maximising.

3 Jan K. Brueckner and W. Tom Whalen, "The Price Effects of International Airline Alliance". *Journal of Law and Economics*, vol. XLIII (October 2000).

Note that the example Brueckner provides considers two monopolists supplying complementary networks, in which these monopolists move from non-cooperative to cooperative pricing. Brueckner uses this example because it illustrates the concept most simply. It also illustrates the point most starkly, in that the potential gains from removing double marginalisation are at their greatest when the two complementary networks are initially characterised by monopoly supply. Although the gains from removing double marginalisation are greatest under these circumstances, as outlined in the Brueckner example, it is important to note that gains can still be achieved when the markets at issue are anything less than perfectly competitive. Markets that are less than perfectly competitive include markets characterised by 'workable' or 'effective' competition, all the way through to monopoly. The European mobile sector likely falls into the category of a market that is less than perfectly competitive.[4]

4 To be clear, the fact that a market is less than perfectly competitive does not imply that firms in that market have significant market power. Perfect competition is a theoretical construct used by economists as a benchmark against which to assess other forms of competition. In practice, economists accept that very few, if any, markets exhibit the characteristics of perfect competition. Rather, the benchmark against which to assess the competitiveness of markets is the slightly weaker benchmark of 'workable' or 'effective' competition. Firms operating in markets subject to 'workable' or 'effective' competition may have a limited degree of pricing or output discretion, and hence, a degree of market power, although not a sufficient degree as to reach the threshold of significant market power.

3. EC POLICY IN RELATION TO INTEGRATION

This section discusses general policy within the European Community in relation to integration in transport and logistics, and the benefits it perceives such integration to bring to the wider community.

In short, the conclusion drawn from this discussion is that integration, including intermodal integration, has been strongly encouraged. This is apparent from comments made by the EC in presentations and speeches. It is also apparent from general policy documents it has published – most notably, its 2001 White Paper on transport – and initiatives it has undertaken on the basis of these adopted policies. In addition, this attitude is reflected in determinations it has made in relation to proposals by firms to integrate.

Some of the details of these policies, initiatives and determinations are discussed elsewhere in this document. The remainder of this section briefly elaborates on the general views expressed within the European Community in regards to integration and the objective of a single European transport market. It also outlines some of the proposed measures of the White Paper aimed at developing a single transport market.

Article 154 of the EC Treaty provides that trans-European transport networks should be established so as to derive the full benefit from an area without internal frontiers:[5]

> *… to enable citizens of the Union, economic operators and regional and local communities to derive full benefit from the setting-up of an area without internal frontiers, the Community shall contribute to the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures.*

Transnational networks in transport, energy and telecommunications are therefore viewed as a vital part of the Single Market policy, and at the core of the Community itself.

The EC's policies in regards to European transport, and its proposed measures to give effect to these policies, are most comprehensively outlined in the *White Paper: European Transport Policy for 2010* ('White Paper'). Completed in late 2001, the White Paper is a high-level policy document which envisages the development of European networks through integration, intermodality and interoperability. The White Paper states that:

> *Action must … be taken to ensure fuller integration of the modes offering considerable transport capacity as an efficiently managed transport chain joining up all the individual services.*[6]

5 Article 154(1) of the EC Treaty.

6 White Paper, p.17.

The White Paper contained about 60 proposed measures in all, some of which were aimed at improving integration, particularly in relation to intermodal integration. Measures discussed in the White Paper included the following interrelated measures:

- "Motorways of the Sea". The EC has long argued that European rail and short-distance water haulage services need improvement in order to successfully compete with trucking services. The White Paper envisaged integration and intermodality as being of 'fundamental importance for developing competing alternatives to road transport'.[7] As a result of a 2004 revision of the guidelines for the trans-European transport networks (TEN-T), four "motorways of the sea" corridors were listed as part of the 30 priority projects, which receive the bulk of EU funding under TEN-T. These corridors are as follows: the Baltic Sea, western Europe (Atlantic Ocean – North Sea/Irish Sea), south-western Europe (western Mediterranean Sea), and south-eastern Europe (Adriatic, Ionian and eastern Mediterranean Seas).

- The 'Marco Polo' programme. The White Paper proposed the introduction of a new 'Marco Polo' program to come into operation in 2003 at the latest, to support intermodality. The "Marco Polo" program provides start-up subsidies to enable specific intermodal services to get up and running.

The White Paper also noted the significant consumer benefits that might emerge from intermodal integration. In particular, the EC believed that integration could potentially lead to enhanced connectivity and seamless travel for consumers, with specific benefits arising the areas of integrated ticketing, baggage handling and continuity of journeys. Perhaps reflecting this view, it is apparent that the EC, in authorising certain airline alliances, has required alliance partners to facilitate intermodal travel (as noted below).

In addition, the EC acknowledges that integration efficiencies are integral to improvements in competition. The development of intermodal infrastructure encourages the formation of efficient supply chains, which in turn improve the economic viability of competing modes. A significant number of policies have been implemented in order to encourage intermodality.

This policy has been highlighted in recent speeches and presentations made by EC representatives, and in decisions by the European Parliament. In a 2002 speech, Loyola de Palacio, who was then a Vice-President of the EC, identified the integration of transport networks as driving efficiency and capacity growth:

> *One of the major tasks of the European Union is the creation of a single transport market, and that can only be achieved by successfully building and developing trans-European networks. The creation of trans-European transport networks will contribute to increasing the efficiency and capacity of transport infrastructures…*[8]

7 White Paper, p.17.

8 P. 4 http://europa.eu.int/comm/transport/logistics/highlights/doc/2003_05_13_centro_logistico.pdf

In the accompanying slides to a 2005 speech, Mr Fotis Karamitsos, Director of Maritime Transport, identified principles of cost-effectiveness, efficiency and the integration of societal and operator interests as being behind integrated transport chains.[9] Mr Karamisos, in a 2004 speech, stressed the importance of industry in implementing integrated solutions:

> *If we want industry to have more recourse to intermodal transport using short sea shipping, rail and inland waterway, we have to understand those logistics trends and enter into a debate with industry, how those trends and the performance of the alternative modes can meet in order to provide viable and client-oriented transport solutions.*[10]

Mr Karamisos also indicated that the best approach for policy-makers to improve the efficiencies of logistics chains was not heavy-handed regulation:

> *This has nothing to do with quotas, restricting user choice or imposing certain production patterns. It has all to do with filling trucks and trains better, reducing empty hauls, re-organising transport networks, and using less space for production.*[11]

The European Parliament, in a 2004 decision, outlined the key priorities of European transport policy as including the 'optimisation of the capacity and efficiency of existing and new infrastructure' through the promotion of intermodality and access infrastructure.[12] The interoperability of rail networks with air transport and short-haul water transport is an identified goal of the European Parliament.[13]

9 http://europa.eu.int/comm/transport/logistics/highlights/doc/2005_06_07_birmingham_eurolog_en.pdf

10 http://europa.eu.int/comm/transport/logistics/highlights/doc/tedim.pdf, p.3

11 http://europa.eu.int/comm/transport/logistics/highlights/doc/tedim.pdf, p.4

12 Corrigendum to Decision No 884/2004/EC of the European Parliament and of the Council of 29 April 2004 amending Decision No 1692/96/EC on Community guidelines for the development of the trans-European transport network, OJ L/167 (30 April 2004), Article 1.

13 Corrigendum to Decision No 884/2004/EC of the European Parliament and of the Council of 29 April 2004 amending Decision No 1692/96/EC on Community guidelines for the development of the trans-European transport network, OJ L/167 (30 April 2004), Article 1.

4. AIRLINE TRANSPORT

The air transport sector has experienced far-reaching change as the Community's successive internal market programs have eliminated barriers to cross-border integration. One element in that trend has been the formation of ever tighter alliances between airlines.

This section evidences the fact that airlines have increasingly sought to enter into strategic alliances and that, in authorising these alliances, the EC has recognised the potential for efficiencies and consumer benefits arising from such alliances. In at least one case, the EC has expressly noted the competition enhancing aspects of alliance authorisation – i.e. that authorisation would enhance competition between competing transnational networks.

Recognition of the importance of integration, and of the contribution it can make, is apparent from EC determinations authorising proposed airline alliances. Relevant comments from these determinations are summarised in section 4.1. In addition to this summary, section 4.2 notes the findings of certain studies that have analysed the price effects of airline alliances, including those involving routes with European endpoints. The studies' findings are consistent with the views expressed by the EC – in particular, they find that airline alliances can lead to significant price reductions.

4.1. AIRLINE ALLIANCES

There has been a significant amount of integration in the airline industry over the past decade. This integration has largely taken the form of strategic airline alliances involving, amongst other things, the coordination of prices and schedules. The extent of airline integration involving European airlines is apparent in the number of proposals for airline alliances that have been brought to the attention of the EC for regulatory approval.

The EC has authorised a number of strategic airline alliances in the past decade. Under Article 81(3) of the Treaty, the EC may authorise an agreement even if it has the purpose or effect of the prevention, restriction or distortion of competition within the common market – thereby infringing Article 81(1) of the Treaty – if the agreement contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit. The restrictions of competition imposed by these agreements should however be indispensable to the attainment of these objectives – the same benefits could not be achieved through less restrictive agreements – and they should not lead to the elimination of competition in respect of a substantial part of the products in question.

Airline alliances recently authorised by the EC include the following:

- Air France and Alitalia;
- Austrian Airlines and Lufthansa;

- British Airways and Iberia;
- British Airways and SN Brussels Airlines;
- BMI British Midland, Lufthansa and SAS;
- KLM/NorthWest; and
- Lufthansa/SAS/United Airlines.

Some of these alliances have been granted regulatory approval on the condition that alliance participants provide certain undertakings aimed at alleviating EC concerns over potential affects of proposed alliances on competition in relevant markets. However, it is important to note that undertakings have been required only in specific circumstances. In particular, to the extent undertakings have been required, this has tended to be on overlapping routes where the alliance partners were the main competitors on the route and it was viewed that the alliance partners would have a substantial combined share on the route post-alliance. Moreover, to the extent that undertakings have been required, the primary focus of these undertakings has been the relinquishing of slots at certain airports.

Moreover, these specific concerns aside, the EC's willingness to approve these alliances, and comments made by the EC in the course of approving them, indicate that it recognises the efficiencies and consumer benefits arising from airline alliances. The following sub-sections summarise comments made by the EC in this connection.

We preface these summaries with the following comments:

- First, we note that the EC has generally had greater reservations over approving coordinated behaviour in situations where alliances are overlapping in nature: upon formation of the alliance, the parties would be the only carriers serving key routes. It appears to have had fewer reservations over approving 'complementary' alliances. This is consistent with the discussion in Brueckner (2003), which demonstrates why complementary alliances in particular would likely give rise to the most significant benefits due to elimination of double marginalisation.

- Second, in certain cases, the EC has approved an alliance on condition that parties to the alliance provide undertakings that facilitate inter-modal/multi-model travel by consumers. This suggests an objective on the part of the EC to not only allow integration across the airline sector, but also to facilitate integration across different modes of transport.

- Third, there are airline alliances other than those listed above that have been granted regulatory clearance by the EC, on the basis that they would be unlikely to give rise to significant competitive detriments. It is possible that the EC would have made similar findings in relation to efficiencies and consumer benefits if authorisation had been sought for these alliances.

Air France and Alitalia

The EC approved an alliance between Air France and Alitalia in April 2004. The clearance was granted for a period of six years, starting from the date of notification (12 November 2001). The agreement enables the airlines to coordinate pricing (and profit sharing), scheduling and capacity across their networks, including on routes between France and Italy.

The EC initially had concerns over the alliance. In particular, despite recognising the complementary between the two airlines' networks, it had concerns over certain overlapping routes.[14] Approval was granted on the basis of certain undertakings to alleviate these concerns. Amongst the required undertakings, the alliance partners were required to commit to:[15]

> *… facilitate inter-modal passenger agreements in order to offer greater choice and better multi-modal transport services to consumers. This, for instance, would allow customers to combine a one way railway trip with a return flight at attractive conditions*

In its press release, the EC noted that:[16]

> *The alliance will give Alitalia customers access to more than 100 new destinations while Air France customers will be offered about 20 new routes.*

Under the condition of "Contribution to improving the production or distribution of goods or to promoting technical or economic progress", the EC noted that the alliance would likely enhance connectivity (in terms of increased numbers of direct and indirect flights), while also potentially leading to cost savings (arising from, amongst other factors, an increase in traffic throughout the network), better planning of schedules and higher load factors.[17]

Under the condition of "Allowing consumers a fair share of the resulting benefit", the EC accepted that the alliance would lead to enhanced connectivity benefits for consumers, and lower unit costs for the alliance partners, although it noted that the pass-through of cost savings depended upon the level of competition faced by the alliance. In particular, the EC noted that consumers would enjoy the following benefits:[18]

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14 EC Press Release (IP/04/469), Commission approves alliance between Air France and Alitalia, Brussels, 07 April 2004.

15 EC Press Release (IP/04/469), Commission approves alliance between Air France and Alitalia, Brussels, 07 April 2004.

16 EC Press Release (IP/04/469), Commission approves alliance between Air France and Alitalia, Brussels, 07 April 2004.

17 Case COMP/38.284/D2 Société Air France / Alitalia Linee Aeree Italiane S.p.A., 7 April 2004 (**Air France/Alitalia Determination**), ¶132.

18 Air France/Alitalia Determination, ¶133-137.

- Enhanced connectivity, especially for interlining passengers;
- 65 additional frequencies per week, representing a 10 per cent increase in weekly frequencies;
- 2 new services, from Milan-Malpensa to Bordeaux and Nantes;
- An increase of more than 25,000 seats per week (a 15 to 25 per cent increase);
- Improved scheduling and improved spread of flights during the day; and
- A potential for unit cost reductions from improved operating efficiency.

Although the EC believed that the alliance might lead to cost savings and synergies, the EC was not convinced that those cost savings would be passed through to consumers. Although the EC noted this concern at the time of authorisation (and has made similar comments at the time of authorising other airline alliances), discussion below suggests that the EC's concerns over the pass through of cost savings to consumers have been unwarranted.

In respect of the "indispensability" condition, the EC accepted that the benefits claimed by the alliance partners would *only* arise under the terms of the proposed cooperation agreement. In doing so, the EC accepted the parties' arguments that:[19]

- The alliance was necessary in order for the firms to compete against other major carriers;
- Implementation of multi-hub networks required a high degree of cooperation; and
- Maximising connecting traffic was particularly important for ensuring the alliance's success. This in turn required particularly close coordination on France-Italy services, in particular, in respect of capacities, frequencies and scheduling.

In addition, the EC accepting that profit sharing was essential to providing equal incentives for the parties to achieve cost savings and synergies and to pass them through to consumers. In contrast, mere revenue sharing would fail to overcome incentives for the parties to engage in inefficient cost-shifting tactics.

19 Air France/Alitalia Determination, ¶138-141.

Austrian Airlines and Lufthansa

In July 2002, the EC granted antitrust immunity to the alliance between Austrian Airlines and Lufthansa retroactively from 10 December 1999, when it was activated, to 31 December 2005. It is apparent that the EC had competition concerns over routes between Austria and Germany. As a result, it granted antitrust immunity on the basis of significant undertakings on the part of the airlines, in particularly in relation to airport slots.[20]

The decision itself elaborated on the types of benefits relevant to Article 81(3) that the alliance might generate.[21] Under the condition of "Contribution to improving the production or distribution of goods or to promoting technical or economic progress", the EC noted that:[22]

- The two networks were largely complementary. Austrian Airlines focused on medium-haul routes in Europe, especially central and eastern Europe, while Lufthansa focused much more on long-haul services. The coordination and extension of the parties' networks would create a more efficient network and, in particular, improve connections with eastern European cities.

- The larger network would produce cost savings from an increase in traffic throughout the network, improved network connection, better planning of frequencies, a higher load factor and improved organisation of sales systems and ground handling services. The EC noted that the parties also expected to save costs by jointly developing new sales channels, e-ticketing in particular. In discussing the magnitude of cost savings, the EC pointed to a confidential estimate of cost savings associated with Austrian Airlines switching from the Qualiflyer alliance, to which Austrian belonged at the time, to the Star alliance, to which it would switch post-alliance. Based on this estimate, the EC remarked that the cost savings would be even greater if one were to compare the alliance to a situation where Austrian Airlines did not belong to any alliance at all.

Elaborating on the benefits that would be realised by consumers, the EC noted the connectivity and scheduling benefits that the alliance would likely give rise to, in the form of the following:[23]

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20 EC Press Release (ip/02/1008), Commission clears partnership between Austrian Airlines and Lufthansa, Brussels, 05 July 2002.

21 EC Decision, COMP/37.730 — AuA/LH, 5 July 2002, relating to a proceeding pursuant to Article 81 of the EC Treaty and Article 53 of the EEA Agreement (**Austrian Airlines/Lufthansa Determination**).

22 Austrian Airlines/Lufthansa Determination, ¶85-89.

23 Austrian Airlines/Lufthansa Determination, ¶90-93.

- Shorter waiting times, removal of the need to move between terminals and harmonised in-flight service quality, which would all result from coordinated scheduling;
- A wider choice of direct flights, particularly between Austria and Germany, as well as connections to eastern European destinations, and also increased frequencies on certain routes;
- The possibility of more feeder services from regional airports as a result of increased traffic on the network, which would improve capacity utilisation for the parties; and
- Increased number of destinations accessible via online codesharing services, particularly third countries beyond hub to hub flights, as well as choice times for outward and return flights.

However, the EC was not convinced that any cost savings would be passed through to consumers in the absence of undertakings.

The EC accepted that the cost reductions claimed by the alliance parties were contingent upon the extent of cooperation outlined by the alliance partners. In particular, the EC noted that enhanced connectivity and scheduling, arising from joint route planning and network development, could only be achieved through close cooperation, particularly for routes linking the two parties' hubs.[24]

BA and Iberia

In December 2003, the EC chose not to raise serious doubts over the alliance between British Airways, Iberia and GB airways. As a result, the relevant agreements between the parties were exempted for six years until 12 September 2009.

The relevant EC press release noted that the parties' networks were largely complementary. Hence, the alliance would enhance connectivity, with Iberia customers likely to enjoy a wider range of routes to the Middle and Far East, while the passengers of BA would likely have greater choice when flying to Latin America.[25] That said, undertakings were required to alleviate competition concerns on certain routes between London and certain Spanish airports (Barcelona, Madrid, Bilbao, Seville and Valencia), on which the parties would have a combined market share of between 50 and 100 per cent post-alliance. The focus of the competitive concerns was in relation to the ability for entrants to secure landing and take off slots.

24 Austrian Airlines/Lufthansa Determination, ¶94.

25 EC Press Release (IP/03/1703), Commission approves alliance between BA and Iberia, Brussels, 10 December 2003.

In its press release, the EC made more general comments on the potential efficiencies and consumer benefits from airline integration, and qualified those limited situations where undertakings would be necessary to alleviate competitive concerns:[26]

> *The Commission takes a broadly positive approach to airline alliances and mergers. Alliances can bring benefits to consumers and the economy as a whole from cost savings as well as from service improvements resulting from combined networks. However, there is a risk that these efficiency gains are achieved at the expense of the elimination of competition in certain markets. Such problems arise particularly on the routes between the hubs of alliance partners, where the partners may be the only competitors and where significant market entry barriers exist. When this happens the Commission tries to ensure continued competition by removing entry barriers.*

The EC decision elaborated on the benefits and efficiencies arising from the alliance.[27] In relation to the condition of "contribution to improving the production or distribution of goods or to promoting technical or economic progress to the benefit of consumers", the EC noted that the parties had claimed the alliance would give rise to a raft of efficiencies and consumer benefits, including cost savings, more efficient use of resources, improved connectivity, new online connections, improved support and coverage of less dense routes, development of new products and promotions, which would lead to lower fares and improved service quality. The parties had claimed that joint working groups would explore the full range of cost savings, which could then underpin future price reductions and service enhancements.

The EC agreed that the alliance, by virtue of bringing together largely complementary networks, would lead to cost savings as well as new or improved airline services. Because of the number of connecting passengers concerned, the EC believed the alliance would bring "concrete benefits" in terms of improved connectivity.[28]

In respect of the condition of "allowing consumers a fair share of the resulting benefits", the EC noted that the parties claimed that consumers would benefit from lower fares, expanded and improved quality of services, as well as enhanced scheduling and connectivity, better airport facilities, new fare products and promotions, greater opportunities for frequent flyers, extended code-sharing services and ticket interchangeability. The EC noted that it had no reason to believe these benefits would not flow to consumers provided there were sufficient competitive constraints.[29]

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26 EC Press Release (IP/03/1703), Commission approves alliance between BA and Iberia, Brussels, 10 December 2003.

27 CASE COMP/D2/38.479: British Airways / Iberia / GB Airways (**British Airways / Iberia / GB Airways Determination**).

28 British Airways / Iberia / GB Airways Determination, ¶44-45.

29 British Airways / Iberia / GB Airways Determination, ¶46-47.

Finally, the EC accepted that to achieve the benefits claimed by the alliance, the parties had to coordinate much more closely than they did through membership of the oneworld alliance. In particular, the EC accepted that the benefits depended upon “full integration of the parties' networks and services, including joint revenue sharing, scheduling and fare setting and the restrictions in the co-operation agreement”.[30]

BA and SN Brussels Airlines

In March 2003, the EC decided not to raise serious doubts against the alliance between British Airways and SN Brussels Airlines, enabling the agreements to be exempted for six years.[31] In relation to the condition of “contribution to improving the production or distribution of goods or to promoting technical or economic progress”, the EC accepted that the parties’ networks were complementary – with the alliance providing SN with access to BA’s global network and BA with access to SN’s African network as well as feed from SN’s customer base in Brussels – and that network coordination would improve services for consumers.[32]

In respect of the condition of “allowing consumers a fair share of the resulting benefits”, the EC accepted the following consumer benefits claimed by the parties:[33]

- A wider choice of destinations and enhanced online connectivity;
- Improved scheduling and connections on UK-Brussels routes and to SN’s African destinations;
- Faster connections at Brussels National airport and London-Heathrow as a result of co-ordinated gate allocation and ground services. Passengers would benefit from shorter transfer times and reduced connecting times, more efficient check-in and improved ground handling;
- The ability to ‘earn and burn’ miles on both parties’ services;
- Reciprocal ticketing, which would enable BA agents to provide ticketing services to a passenger issued a ticket by SN (and conversely). Passengers on restricted tickets would also be able to make and pay for any change in their tickets at any BA or SN point of sale; and
- Reciprocal lounge access.

30 British Airways / Iberia / GB Airways Determination, ¶48-49.

31 CASE COMP/A.38.477/D2 (**British Airways / SN Brussels Airlines Determination**).

32 British Airways / SN Brussels Airlines Determination, ¶55-56.

33 British Airways / SN Brussels Airlines Determination, ¶57-59.

As to the condition of "Indispensability", the EC accepted that the close cooperation embodied in the relevant agreements was necessary to ensure the realisation of efficiencies and consumer benefits, noting that:[34]

> *Fully-fledged co-operation on Brussels-London is essential to enable the parties to offer sufficient inventory to connecting passengers at attractive fares, and therefore ensure SN passengers' access to BA world-wide network. Cooperation on regional UK-Brussels routes is equally indispensable to optimise access for UK passengers to SN's African and European destinations.*

BMI British Midland, Lufthansa and SAS

In June 2001, the EC granted a six-year exemption to a co-operation agreement between BMI British Midland, Lufthansa and SAS.[35] The exemption was granted on the condition of undertakings provided by parties to address competition concerns raised by the EC. The agreement was notified to the EC in March 2000. The agreement consisted of a "Tripartite Joint Venture Agreement", enabling BMI British Midland to re-organise and extend its network services out of London and Manchester to new routes within the EU, particularly from London to Madrid, Barcelona, Milan and Rome.

The agreement would allow the Star alliance to better compete with oneworld, by allowing Luftansa and SAS, both members of the Star alliance, to sell online services between London and a number of intra-UK regional destinations, as well as between London and Dublin, while also offering improved access to London Heathrow, Europe's largest and most congested airport.

The EC noted that the agreement would likely give rise to consumer benefits, in terms of increasing the choice of services for consumers, and improving connections on a number of routes within Europe, in particular from London-Heathrow and Manchester.

In this particular case, the EC believed the alliance would enhance competition, as the alliance would, in some instances, increase the number of alliances operating on a route from one to two. The EC also believed consumers would likely benefit from improved connectivity, more convenient scheduling and seamless travel. In addition, benefits in relation to improved lounge access and through check-in would be improved and extended to services not covered prior to the alliance.

34 British Airways / SN Brussels Airlines Determination, ¶60.

35 EC Press Release (IP/01/831), Commission approves partnership between BMI British Midland, Lufthansa and SAS, Brussels, 13 June 2001.

KLM/NorthWest and Lufthansa/SAS/United Airlines

In October 2002, the EC announced a closure to its investigations in relation to airline alliances between KLM and NorthWest, and between Lufthansa, Scandinavian Airlines System (SAS) and United Airlines.[36] Only the latter agreement required the alliance parties to undertake remedies to alleviate competition concerns, particularly on certain transatlantic routes. This announcement follows what appears to have been a lengthy investigation initiated by the EC in July 1996, into certain transatlantic airline alliances, including the Wings alliance between KLM and NorthWest and the Star Alliance alliance between Lufthansa, SAS and United Airlines.

Regarding the alliance between Lufthansa, SAS and United Airlines, the EC noted that it "took the view that the alliance brought benefits to consumers in terms of increased frequencies and reduced fares".[37] Similarly, in relation to the alliance between KLM and NorthWest, the EC noted that "the KLM-Northwest agreement also brings benefits for consumers in terms of increased frequencies and reduced fares".[38]

4.2. EMPIRICAL EVIDENCE IN RELATION TO THE EFFECTS OF AIRLINE ALLIANCES

Econometric testing supports the theoretical insight that the greater the degree of coordination across complementary geographies, the lower the cross-regional fares. Brueckner (2003) analysed the effect of codesharing and antitrust immunity on international interline airfares, using data drawn from the United States Department of Transportation's Origin-Destination Survey for the third quarter of 1999.[39] Brueckner found that:

- Codesharing reduced fares by 8 to 17 per cent, with the exact number depending on the sample used and the estimation method.
- Antitrust immunity reduced fares by 13 to 21 per cent.
- Codesharing and immunity were substitutes, in the sense that their combined effect is smaller than the sum of their partial effects. The combined effect ranged from between 17 to 30 per cent.

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36 EC Press Release (IP/02/1569), Commission closes probe into KLM/NorthWest and Lufthansa/SAS/United Airlines transatlantic air alliances, Brussels, 29 October 2002.

37 EC Press Release (IP/02/1569), Commission closes probe into KLM/NorthWest and Lufthansa/SAS/United Airlines transatlantic air alliances, Brussels, 29 October 2002.

38 EC Press Release (IP/02/1569), Commission closes probe into KLM/NorthWest and Lufthansa/SAS/United Airlines transatlantic air alliances, Brussels, 29 October 2002.

39 This database is derived from a quarterly 10 per cent sample of all airline tickets where at least one route segment is flown on a U.S. carrier. The database is widely used for empirical research on the U.S. airline industry.

In specific relation to international routes involving a European endpoint, Brueckner found that:

- Codesharing reduces the fare by 8 to 9 per cent;
- Antitrust immunity reduces the fare by 13 to 14 per cent; and
- The combined effect of codesharing and immunity ranged from between 17 to 18 per cent.

Thus, although the fare reductions were lower for this European sub-sample compared with the full sample, they were nonetheless significant. Brueckner and Whalen (2000) estimate that code-share alliance online fares are approximately 25 percent lower than the fares charged for comparable interline flights by non-allied airlines.[40]

In other words, the experience of the aviation industry shows that:

- Multi-segment fares determined by airlines independently setting fares for single segments have historically had a significant element of double marginalisation – that is, they have resulted in prices that are above the profit-maximising level;
- This has created opportunities for profitable 'internalisation' through the development of carriers, or groupings of carriers, that can set international multi-segment fares on an end-to-end basis;
- The benefits of this occurring have been recognised by the EC and have formed part of its rationale for authorising the international agreements and concentrations that have permitted that internalisation to occur;
- When those international agreements and concentrations have been authorised, they have indeed led to substantial and sustainable reductions in prices to consumers.

40 Brueckner and Whalen (2000) also used the DOT database, in particular, utilising data for the third quarter of 1997. For reasons noted in Brueckner (2003), the data relied upon by Brueckner and Whalen was not as accurate as that used in Brueckner (2003), in particular, in respect of identifying those routes on which alliance partners coordinated their operations.

5. RAIL TRANSPORT

This section evidences the extent to which the potential for efficiencies in supply and consumer benefits arising from international integration have been recognised in the rail sector. In particular:

- Section 5.1 provides some background information to the liberalisation of the rail sector, including the reasons for liberalisation, the measures undertaken to liberalise the European rail sector, and the types of market outcomes and structures that are envisaged as a result of liberalisation.

- Section 5.2 summarises how the structure of the market has evolved as a result of these liberalisation initiatives.

What is apparent from the discussion that follows is that liberalisation measures undertaken to date appear to have an objective of encouraging transport operators, who may previously have only operated in one country, to enter and expand into other countries. By encouraging such activity, it seems that the end goal of liberalisation is a situation whereby competition will be between trans-European networks – i.e. between rail operators that compete across multiple countries.

Implicit in this is the fact that this form of competition between trans-European networks has the potential to lead to greater efficiencies and consumer benefits, relative to the status quo or other forms of liberalisation. One important element in these benefits is the development of much more competitive end-to-end pricing (including by the avoidance of double marginalisation) relative to that which would occur in disintegrated, or solely national, rail transport networks.

As is apparent from the discussion in section 5.2, certain firms have started to respond to the EC's initiatives to liberalise the rail sector by integrating geographically. In doing so, it is apparent that these firms recognise the potential efficiencies and competitive advantages arising from integration.

5.1. Liberalisation of the European rail sector

5.1.1. Context for liberalisation

The context for liberalisation is the recognition that rail freight transport has been operated inefficiently relative to road freight transport. The EC points to evidence in relation to trends in road and rail freight volumes as being consistent with this view – in particular, rail freight volumes have declined or remained stagnant, while road freight volumes have increased substantially.[41] It also points to trends in reliability – in particular, the escalating delivery times for rail transport. The EC believes that initiatives aimed at opening and integrating the rail sector – including initiatives aimed at facilitating open rail access – will enhance competition, and ultimately, improve the relative efficiency of rail freight transport.

5.1.2. Measures undertaken to liberalise European rail sector

Liberalisation has been implemented or is being implemented via a series of EC directives, commencing in 1991. In the chronological order in which they have been adopted, these directives were:

- Directive 91/440/EEC;
- A series of directives collectively referred to as “first railway package”;
- A series of directives collectively referred to as “second railway package”; and
- A series of directives collectively referred to as “third railway package”.

Each directive or series of directives has been aimed at progressively increasingly the extent of liberalisation in the rail sector. The following paragraphs briefly elaborate on each of these steps in liberalisation. A detailed discussion on these directives can be found on the EC website.

The EC regards Directive 91/440, adopted in 1991, as the first piece of legislation aimed at liberalising the rail sector.[42] The directive required Member States to take steps to:

- Improve the competitiveness, financial management and indebtedness of railway undertakings;
- Make railway undertakings independent by giving them a budget and system of accounts that are separate from those of the State;

41 http://europa.eu.int/comm/transport/rail/overview/current_en.htm.

42 http://europa.eu.int/comm/transport/rail/overview/dir_91_440_en.htm.

- To guarantee rights of access for rail transport operators in other Member States to international combined transport services; and

- To implement accounting separation for railway infrastructure (track and related equipment) and the operation of transport services.

The first railway package incorporated the rail interoperability and rail infrastructure package directives of 2001.[43] It incorporated the following three directives:

- 2001/ 12/EC concerning the development of European railways, amending Directive 91/440/EEC;

- 2001/13/ EC concerning railway licensing, amending Directive 95/18/ EC; and

- 2001/14/EC concerning capacity allocation, railway infrastructure charging and safety certification.

These directives defined the rights to access rail infrastructure for international freight services, the various conditions railway firms must fulfil to be able to benefit from the access rights, the independence of functions essential for ensuring non-discriminatory access and the possibilities of appeal that the market actors should have. Member States had to implement the infrastructure package directives (2001/12, 2001/13 and 2001/14) adopted in 2001 by 15 March 2003.[44]

At the same time, the EC itself undertook a process of technical standardisation, via the directive on interoperability of conventional rail systems (Directive 2001/16/EC). This directive was similar to the directive in relation to high-speed rail directive (Directive 96/ 48/EC), and involved a process of technical harmonisation based on Technical Specifications for Interoperability (TSIs).

The EC adopted the second railway package on 23 January 2002. The EC notes that these proposals were adopted by the European Parliament and the Council of Ministers in April 2004, and have come into force. The package contained a Communication and a series of proposals to further liberalise the European rail sector. The main elements of this package were:[45]

- Creation of a European Railway Agency in Valenciennes, France;

- Opening of the market for international freight transport to the entire European rail network as of 1 January 2006;

43 The summary of the first railway package is adopted from Jan Scherp, Railway (de)regulation in EU Member States and the future of European rail, accessed from the EC website.

44 http://europa.eu.int/comm/transport/rail/market/legislation_en.htm.

45 http://europa.eu.int/comm/transport/rail/overview/next_en.htm.

- Opening of the market for national freight transport ('cabotage') as of 1 January 2007; and

- Adoption of a directive on railway safety.

The EC adopted a third package of measures on 3 March 2004, consisting of four proposals, these relating to:[46]

- Further opening of the market for international passenger transport by rail;

- Regulation of rights and obligations with respect to passengers in international rail traffic;

- Regulation on rail freight quality; and

- A directive for train driver licences.

The proposals for the third railway package are now being discussed within the European Parliament and the Council of Ministers.[47]

5.1.3. Market outcomes envisaged as a result of liberalisation

As foreshadowed at the start of this section, it appears that the objective of liberalisation in the rail sector is to encourage transport operators, which may previously have only operated in one country, to enter and expand into other countries, thereby creating competition between transnational networks, and that, implicit in this objective is a view that competition between transnational networks has the potential to lead to greater efficiencies and consumer benefits, relative to the status quo or other forms of liberalisation.

To this end, the EC observes – and appears to do so in a generally approving manner – that several firms have engaged in entry and expansion across country borders, or otherwise formed strategic alliances, for the purpose of developing trans European rail networks:[48]

46 http://europa.eu.int/comm/transport/rail/overview/next_en.htm.

47 http://europa.eu.int/comm/transport/rail/market/legislation_en.htm.

48 http://europa.eu.int/comm/transport/rail/market/freight_en.htm.

Since market opening some rail freight operators have developed a European business strategy and have become present in several national markets, for example the Railion group (in Germany, Netherlands, Denmark and Italy), Trenitalia in Italy and Germany (through acquiring a majority share in the private German undertakings TX Logistik) and the Swiss SBB Cargo by setting up subsidiaries in Germany and Italy. Should the recent trend of historical operators entering into competition with each other be confirmed then this would have a significant impact on the level of competition on the European rail freight market. For instance, since December 2003, Railion and its Swiss partner BLS Cargo compete with SBB Cargo and its subsidiaries on the North-South corridor through Switzerland.

By entering into new alliances, new entrants are now in a position to provide competitive international services and to compete with national incumbents for such services. The 'European Bulls' alliance set up by five new entrants in January 2005 is one example for this new trend. Faced with the high market share and relatively strong capital base of the national incumbents, new entrants often fight an uphill battle to establish a significant position on the market. They clearly require favourable market regulation and transparent, non-discriminatory framework conditions to succeed.

Further information on the integration and expansion plans of those alliances, joint ventures and mergers noted by the EC are contained in the following sub-section.

5.2. MARKET TRENDS IN THE RAIL SECTOR

This section summarises how the structure of the market has evolved as a result of these liberalisation initiatives:

- Sub-section 5.2.1 details initiatives by European rail operators to expand and integrate to develop a trans-European presence. The inference that can be drawn from observed integration and expansion is that firms perceive integration to give rise to efficiencies. Moreover, these firms believe that integration, by improving the geographic breadth of their service offerings, as well as generally improving the quality of service that can be provided to customers, enhances their prospects of securing and retaining customers; and

- Sub-section 5.2.2 summarises EC determinations in relation to proposals to integrate rail operations. The EC appears to accept that integration can provide these types of benefits. For instance, in re-authorising one rail joint venture, it noted that the joint venture had led to the significant expansion in services, and had generally been competition enhancing.

5.2.1. Firm strategies

Several European rail operators have started to engage in significant activity aimed at creating trans European networks. The importance of these initiatives has been noted by the EC (see above). This section elaborates on the activities and strategies of these firms.

Railion

Railion, a subsidiary of Deutsche Bahn, is the largest rail freight carrier in Europe. It is based in Germany, although it has subsidiaries, affiliates and other partners in other parts of Europe, which enable it to operate as a trans European network. Its subsidiaries are as follows:

- Railion Danmark, which Railion describes as providing a “bridge to the far North”, by connecting Railion Deutschland with its partners in Scandinavia. Railion suggests that Railion Danmark’s operations have “dramatically reduced transport times to the far North”.[49]

- Railion Nederland, which provides a link to the certain key ports and to the centres of commerce in the Netherlands and Belgium.[50]

- Railion Italia operates in the north-west of Italy, and evolved from the private rail company SFM, in which Railion Deutschland had previously acquired a 95 per cent stake.[51] Railion Italia cooperates with Trenitalia (the Italian state railway), Ferrovie Nord Cargo (FNC) and Rail Traction Company (RTC), to enable seamless one-stop shop services between economic centres in the north of Italy and destinations in central and northern Europe.

Railion also has interests in the following projects and joint ventures:

- BLS Cargo, a Swiss firm in which Railion has a 20 percent stake.[52] Railion and BLS Cargo concentrate on the Alpine routes to Italy via Lötschberg-Simplon and Gotthard.

- Lokomotion, a Munich-based firm providing rail traction services together with RTC (see below), a partner company in Italy, especially on the Brenner Pass route.[53] Railion operates on the Munich-Verona line with Lokomotion.

- Rail Euro Concept, which is a joint venture between Railion and the French SNCF, each of which holds a 50 percent stake in the jointly-owned subsidiary.[54]

49 http://www.railion.com/site/railion/en/national__subsidiaries/danmark/danmark.html.

50 http://www.railion.com/site/railion/en/national__subsidiaries/nederland/nederland.html.

51 http://www.railion.com/site/railion/en/national__subsidiaries/italia/italia.html.

52 http://www.railion.com/site/railion/en/company/profile/affiliates/bls__cargo.html.

53 http://www.railion.com/site/railion/en/company/profile/affiliates/lokomotion.html.

54 http://www.railion.com/site/railion/en/company/profile/affiliates/raileuroconcept.html.

- Rail Traction Company SpA (RTC), founded in 2000, which has the objective, in conjunction with Lokomotion, to continue the development of rail freight transport on the Brenner line, in order to ease congestion on the very busy Brenner highway.[55]

Railion appears to have a strategy and objective of operating at a trans-European level, and perceives that this has the potential to provide significant consumer benefits via one-stop-shop services. This is apparent from various comments it has made on its website.[56] This strategy is also reflected in its corporate strategy, which notes:[57]

> *A company striving to provide transportation services on Europe's railways has to think and act on a European level.*

Its corporate strategy also notes:[58]

> *A further extension to the Railion joint venture is already being considered. Railion is open to new partnerships, whereby it is very conscious of integrating the different corporate cultures into new partnerships. The formula: position regionally - manage centrally - at home in Europe. The aim is to combine the various strengths of the different partners to create something new that will benefit customers and secure the future of rail freight transport in Europe.*
>
> *Another feature of Railion's strategy is cooperation with other railway companies on a regional and cross-border basis, especially in single-wagon traffic, because single-wagon traffic becomes more efficient when the system is working at full capacity. Railion rounds off its portfolio of services and extends its own participation abroad by acquiring stakes in regionally-active railways like BLS Cargo AG. A steadfast determination to take advantage of the opportunities arising from the liberalization of the European transport market is the order of the day here.*

Its 2004 Annual report notes:[59]

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55 http://www.railion.com/site/railion/en/company/profile/affiliates/rtc.html.

56 For instance, its website notes: "Railion can offer its customers a dense network which is unmatched by any other freight railway in Europe." (http://www.railion.com/site/railion/en/national__subsidiaries/italia/italia.html). Its website notes elsewhere: "High transport quality and efficiency – these are the targets for the European Railion group. Offering cross-border products as a one-stop shop enables us to achieve these targets." (http://www.railion.com/site/railion/en/national__subsidiaries/national__subsidiary.html).

57 http://www.railion.com/site/railion/en/company/profile/strategy/strategy.html.

58 http://www.railion.com/site/railion/en/company/profile/strategy/strategy.html.

59 Railion 2004 Annual Report, p. 108.

"The major task for our Railion business unit is to further increase its competitive position in rail freight transport in the face of significant intermodal competition. Our customers demand additional advancements in productivity, high reliability in production regarding the service, and consistent quality extending beyond national borders. Complementary strategic options involving the expansion the Railion network include the addition of other railway, participations, partnership, or direct market entry on our own. We are also meeting the challenges posed by technical issues, as with cross-border passenger rail transport, by investing in multi system, international approved vehicles."

In September 2002, Railion's parent Deutsche Bahn received EC approval to acquire Stinnes, whose subsidiaries included Schenker, a market leader in logistics and road transport services. The combined operations of Railton and Stinnes make parent company Deutsche Bahn the largest vertically integrated rail/logistics operator in Europe.

Trenitalia

As noted by the EC, Trenitalia has acquired a majority stake in TX Logistik. At the time the proposed acquisition was announced, Trenitalia claimed TX Logistik to be "the largest German private cargo railway company", noting that TX Logistik has developed a consolidated railway network within Germany, Switzerland and Austria, as well as commencing operations in Sweden, while also undertaking logistics planning and management functions.[60]

… Today Trenitalia has the possibility to serve international customers, not just through cooperation with other national railway companies, but through their partnership with TX. They can offer a vaster "alternative network" to increase the penetration of rail transport on the North-South itinerary, a directrix that represents about half of all the goods traffic of Italy with the rest of the EU countries. The agreement will be implemented as soon as approval from the competent antitrust authorities is obtained.

Trenitalia has entered into the following alliances and agreements for international passenger services via the following companies:

- Artesia, a company arising from an agreement between the Italian and French railway companies to manage connections between Italy and Paris;
- Elipsos, formed in July 2001 by the Spanish and French rail companies to run night time connections from Spain to France, Switzerland and Italy; and
- Cisalpino, established in November 1993 by Trenitalia and Swiss Railways, which provides long-distance passenger transport services through the Alps between Italy, Switzerland and Germany.

60 Trenitalia Press Release, Trenitalia acquires the majority of TX Logistik AG stock, the largest German private cargo railway company, 27 July 2005.

SBB Cargo

SBB Cargo is a Swiss based firm which has recently integrated into Germany (SBB Cargo Deutschland) and Italy (SBB Cargo Italia).[61] SBB Cargo Deutschland, the German subsidiary of SBB Cargo established in June 2002, handles freight traffic on the corridor linking the North Sea ports, Cologne and Basel and, in collaboration with the parent company, onward shipments to Italy. By 2004, SBB Cargo Deutschland already operated up to 320 trains per week and transported more than 1.6 million tonnes of freight. It claims to have "become one of the largest providers on the north-south corridor virtually overnight". SBB Cargo assumes overall responsibility for cross-border traffic.

SBB Cargo notes that around 35 per cent of freight transported by SBB Cargo crosses the border between Switzerland and Italy. SBB Cargo established SBB Cargo Italia in January 2003 for the purpose of maximising the quality and reliability of these services between the two countries. SBB Cargo Italia manages 210 trains per week operating in Northern Italy, and it is in the process of expanding its activities in this region.

In addition to horizontal integration across railways, SBB Cargo has also vertically integrated into logistics. In particular, ChemOil Logistics, a SBB Cargo subsidiary, specialises in transport of chemicals and oil-based products.[62] It is apparent that SBB views integration as an important competitive advantage, and believes that consumers will ultimately benefit from its integrated operations:[63]

> *By expanding its market presence in Italy and Germany, SBB Cargo has created competition on Europe's north-south transit axis – all in the interests of its customers in the rail freight sector. SBB Cargo is currently the only railway company to be able to offer its customers on this important traffic artery end-to-end cross-border services from a single source. Shipper, operators and forwarders can now entrust their cargo to one rail freight operator who bears full responsibility during its entire journey from Germany, through Switzerland and on to Italy – and vice versa. To coincide with the new services, SBB Cargo has voluntarily signed its first punctuality agreements and committed itself to paying fixed penalties for delays. By launching this new cross-border business model, SBB Cargo is opening up European rail freight to modern operating techniques and breaking the century-old tradition of national rail operators sharing responsibility for freight. SBB Cargo introduces competition for the benefit of its customers.*

61 http://www.sbbcargo.com/en/index/sbbc_heute/sbbc_heute-firmengruppe.htm.

62 http://www.sbbcargo.com/en/index/sbbc_heute/sbbc_heute-firmengruppe.htm.

63 SBB 2004 Cargo Report, p. 8.

European Bulls

European Bulls is a rail freight alliance involving freight companies from Austria, Germany, Italy, Spain and the Czech Republic. The firms involved are Ferrovie Nord Cargo, LTE Logistikund Transport, rail4chem, viamont and COMSA Rail Transport. The European Bulls lists its objectives and strategy as follows:[64]

> *Its main objective is to offer the demand side of the market reliable, high-quality, market-oriented international rail freight products and related services. The alliance will give European industry a new, strong partner for its rail freight requirements.*
>
> *Excellent rail links have become increasingly important for European ports. Rail will be an essential means of transport for handling the cargo growth expected in the years ahead. The newly formed rail freight alliance creates an opportunity for enlarging the port´s hinterland by rail, also the rail links to and from central and eastern european countries.*
>
> *The European Bulls want to establish rail-oriented transport chains with all ancillary functions in the context of a supply chain. The Alliance enables the customer to do "one stop-shopping", involving clearly identifiable responsibility for individual activities with all pertinent and regional characteristics.*

One news article reports that the European Bulls alliance involves participants combining their purchasing activities and installing uniform IT systems.[65] Initiatives of this sort indicate the potential for cost efficiencies within rail freight alliances.

5.2.2. EC determinations

This section summarises EC determinations in relation to proposals to integrate rail operations.

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64 http://www.european-bulls.com/profile.php.

65 http://www.railcargo.nl/index.cfm?menuid=6&HoofdCat=63&Product=774 Alliance founded by European rail freight carriers, 17 January 2005.

One joint venture that the EC has authorised and re-authorised is the joint venture between Maersk and P&O Nedlloyd. Elaborating on this authorisation, in April 2002, the EC decided not to oppose the continuation of the European Rail Shuttle BV (ERS) joint venture between Maersk and P&O Nedlloyd for a further three years.[66] The joint venture provides for scheduled rail transport services for each parties' containers between deep sea ports and inland terminals. ERS also offers any spare train capacity to third parties. The EC originally approved the joint venture in 1998, also for a three-year period. The EC noted that the joint venture:[67]

> *… is expected to continue to bring benefits in terms of increased competition in rail freight, which outweigh the restrictions of competition between Maersk and P&O Nedlloyd.*

The joint venture agreement was first notified to the EC in 1998 with a view to obtaining clearance under Regulation 1017/68 of 1968 laying down the application of the competition rules to transport by rail, road and inland waterways.

Following the expiry of the initial three-year period, Maersk and P&O Nedlloyd applied for the exemption to be renewed. A summary of the new notification was published in the Official Journal on 17 January 2002, which raised no objections. In particular, the EC decided not to raise serious doubts within the meaning of Article 12(3) of Regulation 1017/68. In doing so, it appeared to recognise that the joint venture could potentially enhance competition in an emerging integrated market:[68]

> *The Commission's assessment of the evolution of the market in the past few years noted that the ERS network has been expanded from its original operations between the port of Rotterdam and inland terminals in Germany and Italy. The network now includes the ports of Bremerhaven and Hamburg as well as additional inland terminals in Germany and new points in Poland and Hungary among other countries.*
>
> *The Commission takes the view that, while ERS continues to have the potential to distort competition, there are countervailing benefits, notably that the expansion of the ERS network will further enhance competition in a market which, until relatively recently, has been almost the sole preserve of the state owned railways.*

The relevant EC notice[69] – which did not raise objections – noted the significant expansion of operations since the parties' original notification of the joint venture:

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66 EC Press Release (ip/02/575), Commission renews clearance of rail shuttle joint venture between Maersk and P&O Nedlloyd, Brussels, 17 April 2002.

67 EC Press Release (ip/02/575), Commission renews clearance of rail shuttle joint venture between Maersk and P&O Nedlloyd, Brussels, 17 April 2002.

68 EC Press Release (ip/02/575), Commission renews clearance of rail shuttle joint venture between Maersk and P&O Nedlloyd, Brussels, 17 April 2002.

69 Commission notice pursuant to Article 12(2) of Council Regulation (EEC) No 1017/68 concerning Case COMP/D-2/38.086 ó European Rail Shuttle (ERS) (2002/C 13/03).

> *ERS has expanded its route network. At the time of the decision adopted on 30 January 1998, ERS operations were confined to services between Rotterdam and each of Germersheim, Neuss, Milan and Padova. ERS now serves in addition Mainz, Mannheim, Athus, Mouscroun, Poznan, Warsaw, Prague, Bratislava and Szombathely, all from Rotterdam. It also operates between Bremerhaven and Munich, Nurnberg and Stuttgart and between those three points and Hamburg.*

Other than this particular authorisation, EC determinations in relation to the rail sector have generally taken the form of clearances rather than authorisation, and hence, there is no explicit discussion on the nature and extent of integration benefits arising from these forms of rail integration. These determinations include those approving proposals by the following firms to integrate either horizontally or vertically (the latter involving predominantly integration between railway operations and logistics):

- Autoroute Ferroviaire Alpine, a joint venture between SNCF and Trenitalia, which was approved in August 2003. SNCF is the French rail operator and Trenitalia is the Italian rail operator, both of which provide passenger and goods services;
- A north England passenger rail JV between Serco and NedRailways, which was approved September 2004; and
- Various proposals to integrate involving Deutsche Bahn, most notably:
    - The joint venture between Deutsche Bahn, ECT International and United Depots, approved in February 2002 to operate two adjoining terminals in Duisburg, west Germany;
    - The joint venture between Deutsche Bahn Cargo and Contship Italia, approved in July 2002. Contship Italia is a port terminal operator and provider of transportation of containerised goods in Italy;
    - The acquisition by Deutsche Bahn of Stinnes, approved in September 2002; and
    - The acquisition by Deutsche Bahn of Bax Global, approved in December 2005. Bax Global is a subsidiary of the US-based Brinks company, and participates worldwide in freight forwarding and logistics services.

Because these EC determinations have been clearances rather than authorisations, they have not explicitly considered the efficiencies and consumer benefits arising from integration. That said, it is apparent that, in at least one instance, the EC appeared to recognise that the proposal to integrate entailed the provision of new or enhanced services. In particular, in approving the Autoroute Ferroviaire Alpine joint venture, the EC noted:[70]

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70 http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1148. EC Press Release (IP/03/1148), Commission gives go-ahead to setting up of Autoroute Ferroviaire Alpine, a joint venture between SNCF and TRENITALIA, August 2003.

> *The Commission has approved the setting up of a 50/50 joint venture between SNCF and TRENITALIA, the French and Italian rail companies. The joint venture, also known as Autoroute Ferroviaire Alpine, will provide a new rail shuttle service for lorries and semi-trailers through the Fréjus tunnel under Mont Cenis linking France and Italy and intended to ease the traffic congestion caused by lorries and other heavy vehicles on routes crossing the Alps. The investigation carried out by the Commission under its Merger Regulation showed that the setting up of the joint venture was not such as to create or strengthen a dominant position on the relevant market.*
>
> *The Commission's analysis has revealed that the new service proposed by Autoroute Ferroviaire Alpine will be in addition to the various existing means of transport and routes across the Alps, providing lorry drivers with a new, environment friendly alternative.*

Although not relating directly to rail carriage services, it is worth noting that, in approving the joint venture between Deutsche Bahn and Contship, the EC suggested that the joint venture would introduce a new firm into the market for intermodal transport services, thereby enhancing competition:[71]

> *The European Commission has cleared the creation of a joint venture between German railway operator Deutsche Bahn and Contship Italia SpA, a port terminal operator and provider of transportation of containerised goods in Italy. The new company will provide international intermodal transport of containers between Italian ports and the premises of customers in Austria, Switzerland and Southern Germany. The analysis carried out by the Commission indicated that the joint venture would bring a new player to the market and that the vertical relationship with the parent companies did not pose any particular concern.*
>
> *…*
>
> *The Commission considered that the joint venture would bring a new player to the market for intermodal transport services which counts with such companies as Hupac, which operates a Europe-wide intermodal transport network, ECS Express Container Service, a provider of door-to-door container transport services, Intercontainer-Interfrigo, a pan-European network operator offering combined rail/truck transport services throughout Europe, and Alpe Adria. In addition, shipping companies such as Maersk Sealand or Hapag Lloyd are also active in this market through the organisation and sale of their own intermodal transportation services.*

To summarise, although the EC's precise views as to the likely efficiencies and consumer benefits from rail integration have not always been explicitly set out in the context of clearing proposals to integrate, there has been a clear acknowledgement that efficiencies and benefits would likely arise as a result of these integrations.

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71 http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/02/1056&format=HTML&aged=1&language=EN&guiLanguage=en EC Press Release (IP/02/1056), Commission clears Deutsche Bahn JV with Contship in the field of intermodal transportation of containers, July 2002.

6. MARITIME TRANSPORT

This section examines the maritime sector, which broadly falls into two sub-sectors: cargo and ferries.

- Section 6.1 considers market developments in cargo transport; and
- Section 6.2 considers market developments in ferry transport.

In short, market developments indicate a willingness to expand and integrate in each of these maritime market segments. The inference drawn from observed integration and expansion is that firms perceive that integration gives rise to efficiencies. In addition, firms believe that integration, by improving the range of services able to be offered, as well as improving the quality of service, enhances their prospects of securing and retaining customers.

The EC's role in these developments shows that it recognises the importance of these efficiencies and has sought to ensure that competition, including that between geographically integrated operators and those operators that remain national in focus, will ensure that the efficiencies translate into consumer benefits.

6.1. CARGO

This section considers market developments in cargo shipping.

Cargo shipping has been the subject of focussed regulatory policy designed to enable firms to capture the benefits of integration that arise from co-ordination. For many years, international liner conferences have enjoyed anti-trust immunity known as "block exemptions". Now, as these immunities are increasingly questioned, other means of capturing integration efficiencies are being pursued.

First, some background is provided to the current exemptions that apply to liner conferences (sub-section 6.1.1); then we examined the possible move away from these current exemptions (sub-section 6.1.2); and finally, we consider trends towards intermodal integration by cargo operators (sub-section 6.1.3).

6.1.1. Block exemptions

Council Regulation 4056/86[72] contains provisions which detail the application of competition rules to the maritime transport industry. Articles 3 and 4 of Regulation 4056/86 provide 'block exemptions' for 'liner conferences'. A block exemption operates to exclude a category of undertaking from the operation of Articles 81 and 82 of the EC Treaty, which would otherwise prohibit anticompetitive agreements and abuse of dominance.

72 Council Regulation 4056/86 OJ [1986 L 378/4.

A liner conference is a group of vessel operating carriers which provides international liner services for cargo along certain routes or within a specified geographical area. Within the framework of the conference, the firms operate under uniform or common prices. Further, the firms coordinate timetables, how much capacity each member offers and the allocation of cargo and revenue. The shipping industry has historically enjoyed antitrust immunity, and continues to do so in a number of jurisdictions. In other words, the industry has been able to gain certain coordination benefits of integration – even though the participants in this coordination were independent firms. The exemption is generally justified by a need for rate stability, and the undesirability of marginal cost pricing in a high fixed cost industry.

The Council, in the preamble to Regulation 4056/86, outlined its reasons for exempting conference arrangements:

> *Whereas provision should be made for block exemption of liner conferences; whereas liner conferences have a stabilizing effect, assuring shippers of reliable services; whereas they contribute generally to providing adequate efficient scheduled maritime transport services and give fair consideration to the interests of users; whereas such results cannot be obtained without the cooperation that shipping companies promote within conferences in relation to rates and, where appropriate, availability of capacity or allocation of cargo for shipment, and income; whereas in most cases conferences continue to be subject to effective competition from both nonconference scheduled services and, in certain circumstances, from tramp services and from other modes of transport; whereas the mobility of fleets, which is a characteristic feature of the structure of availability in the shipping field, subjects conferences to constant competition which they are unable as a rule to eliminate as far as a substantial proportion of the shipping services in question is concerned.*

6.1.2. The move away from conferences

In 2003, the EC requested Erasmus University Rotterdam to conduct a review of Regulation 4056/86. The report, and the EC, questioned whether the economic arguments in favour of liner conferences were sufficiently persuasive to justify the block exemption.[73] In a 2004 discussion paper, the EC echoed these concerns:[74]

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73 http://europa.eu.int/comm/competition/antitrust/review/submissions/final_report_erasmus.pdf p.67.

74 http://europa.eu.int/comm/competition/antitrust/others/maritime/review_4056.pdf, p.2.

> *The conditions for an exemption would appear to be no longer fulfilled. There is no conclusive economic evidence that the assumptions on which the block exemption was justified at the time of its adoption in 1986 are, in the present market circumstances and on the basis of the four cumulative conditions of Article 81(3) of the Treaty, still justified. Realistic proposals for amendment of the BE have so far not been put forward, notably discussion agreements would not appear to provide for a less restrictive alternative. On that basis, DG COMP would propose to repeal the present BE for liner shipping conferences.*

The policy shift away from the block exemption has been prompted by substantial changes in the liner industry. The EC has made particular note of increased *operational* cooperation, which has come in the form of consortia, alliances and a tendency to consolidate through mergers.[75] Operational cooperation has been characterised by the growth of long term contracting between carriers and shippers, which now accounts for 90 per cent of transatlantic freight.[76]

This concern about the block exemption was echoed by European shippers in a submission to the EC where the increasing importance of supply chain logistics was stressed, and the incompatibility of supply-chain efficiency and liner conferences.[77] The shippers recommend that the block exemption be abolished and that policy shift towards encouraging the viability of consortia. Another research paper commissioned for the review of the block exemption found that the industry was integrating horizontally and vertically.[78] For example, in 1995 16 firms made up 50 per cent of existing capacity. In 2005, seven firms made up 50 per cent of existing capacity.[79] In the face of the changing industry, and increased consolidation, the conference system has been increasingly challenged by regulators and policy-makers.

This challenge does not, however, signal any less support for the benefits of integration; it merely reflects the fact the better, less restrictive means of achieving those benefits are emerging, and ought to be harnessed.

6.1.3. Intermodal expansion and integration by cargo shipping carriers

One important industry trend is the evolution of firms beyond shipping into end-to-end logistics. This trend, again, illustrates the point that markets do indeed respond when integration benefits are available.

75 http://europa.eu.int/comm/competition/antitrust/others/maritime/review_4056.pdf, p.3.

76 http://europa.eu.int/comm/competition/antitrust/others/maritime/review_4056.pdf, p.3.

77 http://europa.eu.int/comm/competition/antitrust/others/esc_future_paper.pdf, p.3.

78 http://europa.eu.int/comm/competition/antitrust/legislation/maritime/com_2005_0651_div_en.pdf, p.24.

79 http://europa.eu.int/comm/competition/antitrust/others/maritime/shipping_report_26102005.pdf, III-27.

A report commissioned by the European Commission, conducted by the consulting firm Global Insight, discusses the increased trend in the industry towards intermodal expansion, integration and point-to-point logistics:[80]

> *The main carriers' service strategy relies – with growing importance – on the supply of global logistics solutions. Correspondingly, concentration does not only take place on horizontal level (between carriers). Carriers also engage in vertical integration activities that cover almost all stages of the transport chain. To offer door to door services carriers operate companies for hinterland transport, port terminals and inhouse agencies. Furthermore, some of the large liner shipping companies, e.g. Maersk Line and to some extent MSC, focused in recent years on own or quasi-own (dedicated) terminals. The reason is that direct access to handling capacities often allows faster and more efficient port operations as well as a strong revenue stream based on volume throughput and relatively high terminal handling charges levied by the industry.*

Global Insight went on to comment that:[81]

> *Consolidation also takes place on the shippers' side. As a response to the trend of integrated logistics solutions, freight forwarders and especially the big 3PL (Third Party Logistics) providers increasingly combine ocean freight activities with their other services in order to offer one-stop solutions for all logistics needs. This is fostering a concentration trend on the shippers' side as well. Freight forwarders usually negotiate with several ocean carriers to carry out their customer's orders.*

As discussed elsewhere, there has been an effort within the European Community to promote intermodality. This section evidences the nature and extent of intermodal expansion and integration by three of the largest European cargo shipping carriers, being Maersk Sealand, CMA-CGM and Hapag-Lloyd.[82] On the one hand, Maersk Sealand and CMA-CGM appear to have a strategy of expanding and integrating into other modes of transport – most notably, trucking and rail. On the other hand, Hapag-Lloyd has adopted the opposite approach, which is to focus on the shipping component, and to divest its other transport interests.

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80 http://europa.eu.int/comm/competition/antitrust/others/maritime/shipping_report_26102005.pdf, III-25.

81 http://europa.eu.int/comm/competition/antitrust/others/maritime/shipping_report_26102005.pdf, III-26.

82 Unless otherwise specified, the information and data presented in this section have been obtained from company websites.

Elaborating on each of these firms' strategies, Maersk is the largest container shipping firm in the world, possessing some 1.4 million TEUs and more than 500 vessels.[83] In addition to the core container shipping business, Maersk has consolidated with firms offering point-to-point logistics solutions. Maersk Lines, the primary shipping business, runs a dedicated network of trucks and trains. Moreover, many of the 'hub' ports utilised by Maersk Lines utilise feeder vessels which transport smaller volumes to nearby ports. Its integrated operations also include the following:

- Safmarine Container Lines, a smaller Maersk firm, which operates a land-based transport network utilising both trains and trucking.

- A Maersk subsidiary, which operates ferry services between the UK and the Continent. This same subsidiary also arranges door-to-door delivery of freight on the Continent.

- Maersk Logistics, which delivers integrated logistics solutions to major customers. In 2004, Maersk logistics launched a new IT platform in response to the 'increasing and more complex demands from customers for increased efficiency, flexibility and secure supply chain, through increased integration of [Maersk's] service policy'.[84]

- APM Terminals, a subsidiary firm, which operates container terminals and related activities in more than thirty-five ports worldwide. In 2004, APM Terminals was chosen to operate new container terminals in, amongst others, Mumbai, Tangier, Douala, Xiamen and Portsmouth.

Maersk also operates a series of shipyards, container-builders and other support services to maintain an extensive fleet. Previously, Maersk operated an airline called Maersk Air. Maersk Air merged with Sterling Airways in 2005, and is now owned by FL Group.

CMA-CGM is the fourth largest container shipping firm in the world. It is based in France, and was previously state owned. Privatised in 1996, CMA-CGM has grown through acquisition, rising from the eighth largest carrier in 2001 to its current position. CMA-CGM operates an extensive range of subsidiary firms. In addition to its shipping subsidiaries, CMA-CGM operates a number of intermodal firms. CMA-CGM is actively pursuing a policy of intermodal integration:

> *'CMA CGM Group is pursuing its strategy of strengthening its portfolio of integrated, global logistics services, thereby enhancing its ability to respond to customer needs for air freight logistics and in China'.*[85]

83 Twenty-foot Equivalent Unit ('TEU') is a unit of measurement which denotes a 20-foot shipping container. Thus, a 40 foot shipping container is equal to two TEUs.

84 Maesk 2004 Annual Report, p.12.

85 http://www.cma-cgm.com/products_services/logistic_links.asp.

Its integrated operations include:

- Rail Link, a wholly owned subsidiary which in 2004 carried some 37,000 TEUs from European ports to the interior. Rail Link routes operate from Marseilles to as far north as Hamburg.
- QualitAir & Sea, a freight logistics firm and a subsidiary of CMA-CGM. It utilises over 250 ports and airports to deliver end-to-end transport services. Operating through CMA-CGM logistics, Qualitair & Sea delivers multimode transport solutions. Closely aligned with Qualitair & Sea is CMA-CGM logistics, which 'provide its clients with a single contact to answer their needs concerning the logistics chain'.[86] Another subsidiary group is the Naxco range of firms, which also provide integrated logistics solutions.
- Terminal Link, a subsidiary by which CMA-CGM invests in and operates a number of container terminals worldwide. CMA-CGM also has interests in tourist travel.

As noted above, Hapag-Lloyd, a German company, goes somewhat against the trend of integration. In 2004, the Group divested itself of its other logistics activities. Unlike other large firms, Hapag-Lloyd has a 'focus on shipping'[87] – both container and cruise ships.

In short, it can be concluded that there is evidence that two of the largest European cargo shipping carriers perceive benefits from engaging in intermodal integration. Perhaps more importantly, the market has allowed firms to adopt a diverse range of strategies that each perceives will realise the greatest gains.

6.2. Ferries

The benefits of integration have also been recognised in respect of ferries.

In January 1999, the EC exempted a proposed joint venture between P&O and Stena from the prohibition on anti-competitive agreements set out in Article 85(1) of the EC Treaty, for the period until March 2001, after initially raising concerns over competition and also uncertainties concerning future developments.[88] The joint venture started operations in March 1998. The relevant arrangements involved the two parties combining their ferry operations on the Short French Sea and Belgian Straits into a joint venture called P&O Stena Line.

86 http://www.cma-cgm.com/products_services/logistic_links.asp.

87 Hapag-Lloyd 2004 Annual Report.

88 EC Press Release (ip/99/56), Commission approves P&O Stena Line joint venture, Brussels, 28th January 1999.

In its decision, the EC noted in relation to the "Short Sea tourist market":[89]

> *The first and second conditions of Article 85(3) require an assessment of the efficiencies and other benefits that can be expected from merging the parties' separate ferry operations on the Short Sea, and the extent to which those efficiencies will benefit consumers.*
>
> *The creation of the joint venture will bring about benefits, notably the improved frequency to be offered by the joint venture, continuous loading, and estimated cost savings of GBP [...] million. The overall positive benefits will arise even were the joint venture to decide to stop operating on the Newhaven/Dieppe route.*
>
> *Customers can be expected to benefit from the improved frequency and continuous loading. Customers can be expected to benefit from the cost savings to the extent that the joint venture will be faced by effective competition.* (¶61-63)

As regards the third condition of indispensability, the EC accepted that the claimed benefits would only arise as a result of close coordination between the joint venture partners:[90]

> *The Commission considers that lesser forms of cooperation between P&O and Stena, such as joint scheduling, interlining or pooling, would be unlikely to lead to the benefits to be achieved by the joint venture. In particular, any form of cooperation less than a joint venture would not achieve the savings in administration and marketing, which represent a significant part (GBP [. . .] million) of the estimated GBP [. . .] million costs savings.* (¶64-66)

In relation to the "Anglo/Continental freight market", the EC noted:[91]

> *In relation to this market the joint venture does not risk eliminating competition and the other conditions for exemption pursuant Article 85(3) are fulfilled.*
>
> *The creation of the joint venture will bring about benefits, notably the improved frequency to be offered by the joint venture, continuous loading, and the projected cost savings. These benefits will accrue to freight customers.*
>
> *Freight customers can be expected to benefit from the improved frequency and continuous loading, and can be expected to benefit from the cost savings to the extent that the joint venture will be faced by effective competition.* (¶131-133)

89 Commission Decision of 26 January 1999 relating to a proceeding pursuant to Article 85 of the EC Treaty (Case IV/36.253 P&O Stena Line) (1999/421/EC).

90 Commission Decision of 26 January 1999 relating to a proceeding pursuant to Article 85 of the EC Treaty (Case IV/36.253 P&O Stena Line) (1999/421/EC).

91 Commission Decision of 26 January 1999 relating to a proceeding pursuant to Article 85 of the EC Treaty (Case IV/36.253 P&O Stena Line) (1999/421/EC).

The EC again accepted that the claimed benefits would only arise as a result of close coordination between the joint venture partners:

> *… lesser forms of cooperation, such as a joint scheduling, interlining or pooling, would be unlikely to lead to the benefits to be achieved by the joint venture. In particular, any form of cooperation less than a joint venture would not achieve the savings in administration and marketing.* (¶134)

In June 2001, the EC announced that it would not oppose the continuation of the P&O Stena Line cross-Channel ferry service, granting the joint venture a further six year exemption.[92] In the relevant press release, it appears the EC accepted that there had been no material deterioration in competition over the period in which the joint venture had initially been exempted, and that it had given rise to cost efficiencies and consumer benefits:[93]

> *P&O Stena Line has had to face competition from both the Eurotunnel, Sea France, Hoverspeed and, more recently NorfolkLine. The investigation has revealed no evidence that P&O Stena Line and Eurotunnel, the main operators on the route, acted in parallel and the characteristics of the market are still such that the operators can be expected to continue to compete with each other rather than act in parallel fashion to raise prices.*
>
> *The Commission's review also established that customers benefit from cost savings and improvements to the service. Through the establishment of the joint venture, consumers have enjoyed the benefit of improved frequency of departure. The waiting time at the quay has been reduced through a continuous embarkation system. The costs savings from the joint service has also enabled P&O Stena Line to invest more in achieving a high quality standard in onboard services and other facilities.*

Again, this decision illustrates that, first, markets do respond when integration benefits are available; and second, that the EC recognises and enables cross-country integration efficiencies to be captured.

92 EC Press Release (IP/01/806), Commission does not oppose the continuation of the P&O Stena Line cross-Channel ferry service, Brussels, 07 June 2001.

93 EC Press Release (IP/01/806), Commission does not oppose the continuation of the P&O Stena Line cross-Channel ferry service, Brussels, 07 June 2001.

7. IMPLICATIONS FOR MOBILE TELEPHONY

7.1. INTERNATIONAL ROAMING AND DOUBLE MARGINALISATION

International roaming is a feature of mobile telephony that enables an end user to make and receive calls and other communications while outside their home country, by "roaming" onto the networks in other countries, often operated by carriers other than the one with whom they have a direct customer relationship.[94]

The underlying commercial arrangements involve the carrier whose customer is roaming (carrier A) paying the carrier providing the roaming (carrier B). Calls to the customer are re-routed by carrier A to carrier B, which delivers them to the customer's handset. Carrier B also enables the customer to originate calls while in its coverage area. Carrier B charges a fee to carrier A, which bills the end customer.

As in transport, double marginalisation could occur in international roaming if both carriers have market power.

We make no assumptions in this paper and have undertaken no analysis to determine the extent to which mobile operators do in fact have market power since we understand that this is subject to separate review by the national regulatory authorities in Europe under the EU Telecoms Framework.

That said, if firms do not have market power in wholesale roaming, then the case for regulating must be very weak. If, on the other hand, markets are not perfectly competitive – as may be the case with respect to the European mobile sector, for instance, because it is viewed as being characterised by a degree of product differentiation – then double marginalisation issues can arise. Thus, the analysis in this report concerning the European transport sector is instructive in terms of how the double marginalisation issue is best addressed. In particular, this analysis suggests that the market will drive efficient and competitive outcomes. Moreover, to the extent that mobile markets are more competitive than those transport sectors we have considered, this suggests that the market mechanism would work even more effectively.

In the example above, carrier B charges carrier A for, say, terminating a call to carrier A's roaming customer. The termination fee includes carrier B's margin, and that fee then becomes carrier A's input cost. Carrier A then adds its own margin, charging a total price to the end customer that includes both margins. This results in a price that is above the optimal price for the two carriers considered together.

94 When the international roaming is on to a network with which they do have a direct customer relationship (as would happen, say, within Vodafone), then that implies that that network has internalized international transactions.

This is because carrier B, in setting its charges to carrier A, does not take account of the fact that setting a lower charge would increase the profits available to carrier A; while carrier A, in setting the retail price, does not take account of the greater profits a lower price might create for carrier B. As each carrier neglects the 'externality' that its pricing causes the other carrier, prices rise to socially excessive levels.

In this respect, international roaming in mobile telephony provides an interesting parallel to the double marginalisation issues (described above) in the transport industry. There appears to be evidence to suggest that these parallels are valid. For example, US cellular operators have gradually acquired or overbuilt their rural roaming partners over the past decade in order to establish national networks and eliminate inter-network roaming charges. These have lowered costs of service provision in the US and allowed operators such as AT&T to launch 'OneRate' retail tariffs.[95] It was reported that, subsequent to the introduction of this plan, prices fell and call volumes increased.[96] Similarly, we understand that when Vodafone's acquisition of Mannesmann was reviewed by the EC, the EC concluded that Vodafone's ability to internalise traffic would create unmatchable cost advantages for the company in the market for advanced pan-European services. These examples suggest that, as in the transport industry, mobile operators pursue opportunities to capture efficiency gains by internalising margins.

The EC's policy response on mobile roaming, however, provides no such parallel, as its response to the Mannesmann acquisition illustrates. In that case the EC required undertakings from Vodafone which were expressly intended to neutralise the cost benefits which the Commission believed the post-merger entity obtained from its pan-European footprint and the elimination of cross-border roaming costs[97]. The EC's current roaming initiative further illustrates this policy divergence.

95 This plan was introduced in 1998. See Wireless Week, AT&T Introduces One-rate Plans, by Monica Alleven, May 11, 1998.

96 The Wall Street Journal, Mergers won't ease crowding in cellphone industry, by Jess Drucker, February 13, 2004. Although these developments in the US mobile sector suggest that our approach of drawing parallels between the EC's approach to regulating transport, and the potential benefits of applying this approach to regulation mobile servies, is valid, we note that a detailed assessment of US mobile sector developments is beyond the scope of this report.

97 http://europa.eu.int/comm/competition/mergers/cases/decisions/m1795_en.pdf.

7.2. THE EC'S ROAMING INITIATIVE

The EC has recently renewed its interest in roaming charges, and announced a new roaming initiative[98]. In February 2006, the Commissioner responsible for Information Society and Media, Ms Viviane Reding, gave a speech stating that roaming prices remain unjustifiably high, and are essentially unchanged since the launch of the EC's roaming website in October 2005. [99]

> *We all know from surveys that in spite of many warnings and policy initiatives, roaming prices remain unjustifiably high at the retail level even though competitive pressure may have brought down charges at the wholesale level. The ERG itself made this point – which in the end means that operators are not passing their savings on to the consumer – in its conclusions of May 2005.*

In the same speech, she announced an initiative to cap prices, country-by-country, by reference to domestic roaming charges, in order to reduce the margins earned by operators.

> *The new Regulation will not prescribe a specific "ideal" price for international roaming, but would require that international roaming charges are not higher than national roaming charges. Roaming charges are paid for using the network of another operator, and thus should not be higher in an internal market just because the other network is placed in another EU Member State.*

The proposal is therefore one of direct price regulation with the intention of immediately reducing prices and margins for international roaming, including any "double margins" that may exist.

7.3. COMPARISON TO EC APPROACH IN TRANSPORT

The previous sections have shown that in transport, the EC has encouraged firms to compete on a transnational basis by capturing efficiency gains (including internalisation of what would otherwise be double margins) through integration across country borders. Rivalry between integrated firms then enables those margins to be subsequently competed away.

This approach contrasts with the EC's stance on international roaming, where it proposes to directly regulate prices to reduce margins. If margins are reduced, it follows that the incentives of operators to internalise those margins through cross-country integration would be reduced also (all other things being equal).

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98 http://europa.eu.int/information_society/activities/roaming/internal_market/index_en.htm.

99 Reding, Towards a True Internal Market for Electronic Communications, speech given to ERG, Paris, 8 February 2006.

As a result, firms that have already internalised these margins (e.g. through mergers or alliances) would lose any competitive advantage they gained from having done so; and firms that have not integrated would have reduced incentives to compete on this basis in the future.

While transport and mobile telecommunications are not identical industries, there are significant similarities: for example, they are both network industries with high fixed costs, where breadth of coverage is important. Moreover, in both industries the regulatory objective appears to be to develop more efficient pan-European networks and services, as acknowledged by Ms Reding in the same speech for mobile telephony.

> *I would also want you to consider how we can jointly encourage the arrival of more trans-national or even pan-European communication services. I will speak about roaming in a few minutes. But shouldn't the long term objective of our policy be to make international roaming inside Europe disappear in pushing for communication services available over the entire continent?*

Given the EC's approach to achieving transnational connectivity and efficiencies in transport, it therefore appears that for mobile telephony the EC has too readily arrived at the conclusion that price regulation is the best means to achieve its goals.

The apparent common characteristics of transport and mobile networks suggest that the EC, in considering the proposed mobile service regulations, should tread carefully. In particular, it should have regard to the approach it has adopted in respect of the transport sector, which has allowed firms to internalise efficiency gains (including those that come from the elimination of double marginalisation), thus avoiding the risk of damaging incentives to compete on an integrated, pan-European basis – ultimately, to the benefit of consumers.

In short, instead of directly attacking perceived high margins through price regulation, the EC could potentially achieve more sustainable pressure on margins by encouraging the conditions for them to be competed away. Indeed, there is a risk that the former approach, by taking away the rewards of integration, may make the latter more difficult to achieve.