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**ASSESSMENT OF THE EC 3RD RAILWAY PACKAGE**

**Proposed Regulation of Freight Quality**

*Final Report for Department for Transport  
Volume 3*

**NERA**  
Economic Consulting

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## **1. INTRODUCTION**

### **1.1. The Study**

This is volume 3 of the final report in NERA's study for the Department for Transport (DfT) on the European Commission's 3<sup>rd</sup> Railway Package. This particular volume deals with the proposed Regulation on contractual quality requirements for rail freight services.

The final report presents the evidence base for a regulatory impact assessment of the four legislative proposals contained within the 3<sup>rd</sup> railway package. The report consists of four volumes, one for each proposal, as follows:

1. A draft Directive concerning opening the market for international passenger services by rail;
2. A draft Regulation setting out the rights and obligations of international rail passengers;
3. A draft Regulation on contractual quality and compensation requirements for rail freight services; and
4. A draft Directive on train driver licensing.

### **1.2. The Proposal**

Key features of the draft Regulation on freight quality contracts are that:

- It applies to all rail freight services in the European Union.
- It requires compensation to be paid for loss of goods.
- It specifies performance criteria with respect to delays and cancellations, and the minimum amounts of compensation to be paid.
- Operators have the right to recover funds from the infrastructure manager in accordance to the attribution of the performance failings.

### **1.3. Our Approach**

NERA's project team consists of economists with extensive experience of working on studies in the rail sector and on appraisal / cost benefit analysis techniques. Our team has worked on a wide range of projects in the rail sector, including a number of studies on rail freight.

We held discussions with the following stakeholders with respect to this proposal, and are grateful for the considerable assistance we received:

- Department for Transport (DfT);
- EWS;
- Freightliner;
- Office of Rail Regulation (ORR);
- Rail Freight Group; and
- Strategic Rail Authority (SRA).

We confirmed with Northern Ireland Railways that they do not have freight services, and do not expect to start such services in the medium term. We also had a brief discussion with an economist from Network Rail.

#### **1.4. Structure of the Report**

The report structure closely follows the standard structure for a regulatory impact assessment as set out in the Cabinet Office guidelines.<sup>1</sup> It diverges in some areas to reflect the fact that this is providing the evidence base for the RIA, and not the RIA itself (for example, the consultation is a separate process). Following the introduction, the report structure is as follows:

- Chapter 2 discusses the purpose and intended effect of the proposal;
- Chapter 3 provides supporting information that is used to prepare the evidence base for the RIA;
- Chapter 4 introduces the options we are considering to address the purpose of the proposal, including option 1 which is the base case to which other options are compared;
- In Chapter 5 we examine the business sectors affected by the proposal;
- In Chapter 6 we discuss the implications of the proposal for equity and fairness;
- In Chapter 7 we analyse the benefits of the proposal and other options;
- In Chapter 8 we analyse the costs of each of the options;
- In Chapter 9 we discuss the impacts of the options on small firms;
- In Chapter 10 we discuss the implications of the options for competition; and
- In Chapter 11 we summarise our findings.

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<sup>1</sup> Cabinet Office (January 2003) *Better Policy Making: A Guide to Regulatory Impact Assessment*.

## **2. PURPOSE AND INTENDED EFFECT**

### **2.1. Objectives**

The objective of this proposed Regulation is to improve the performance of rail freight, to convince customers that the performance has improved, and to insure them against poor performance when transporting goods by rail. The European Commission states that it expects the application of the compensation scheme to provide effective incentives to railway undertakings to enhance the efficiency and flexibility of their production processes.

### **2.2. Background**

#### **2.2.1. Developments at European Union level**

This proposal adds to the measures that were adopted in April 2004 through the 2<sup>nd</sup> Rail Package in the European Commission's objective to reform the rail sector as set out in its 2001 White Paper, "European Transport Policy for 2010: Time to Decide".

The international freight market was liberalised on the 50,000 km trans-European freight network in March 2003, and the entire freight market is to be liberalised in 2007.

The European Commission's objective for the freight sector is to restore the rail share to 14 per cent of total freight tonne km by 2010 from its current share of 13.1 per cent of freight tonne km.

#### **2.2.2. Developments within the United Kingdom**

The rail freight market in the UK was privatised over the period from December 1995 to November 1997. Domestic freight service quality is not regulated. Customers can and do negotiate bespoke performance regimes into their contracts. The market is liberalised: there is scope for customers to switch supplier. International service quality is subject to regulation through the provisions of the COTIF convention. This regulation applies to international freight in 42 countries, including 22 European Union Member States.<sup>2</sup>

### **2.3. Risk Assessment**

The European Commission notes in its Impact Assessment Form that increased competition, resulting from market liberalisation, should deliver performance benefits. However, it argues that the development of competition is likely to be slow, and therefore believes that direct regulation of quality is needed. The risk it is seeking to address is of poor

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<sup>2</sup> COTIF does not apply in Cyprus, Malta or Estonia.

performance, currently experienced for many rail freight services, with the weak incentives to improve performance that may be inherent in unliberalised markets.

### 3. SUPPORTING INFORMATION

#### 3.1. The Rail Freight Market

Rail's share of the narrow freight market (rail and HGV) is estimated to be 11 per cent for 2003. The rail share of the wider freight market (including pipelines, light goods vehicles and water transport) is around 7.4 per cent. These estimates are published by the SRA<sup>3</sup> which also estimates that transferring all rail freight to road would lead to an additional 5.89 million lorry journeys or 1.35 billion lorry km a year.

Table 3.1 shows the volume of rail freight moved by sector in tonne kilometres since 1999/2000. This illustrates the relative importance of each commodity sector to the rail freight sector as a whole. In 2003/2004 416,053 freight trains were operated.

**Table 3.1**  
**Rail Freight Moved in Great Britain (billion net tonne km)**

Sector	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
Coal	4.8 (26%)	4.8 (27%)	6.2 (32%)	5.7 (30%)	5.8 (31%)
Metals	2.2 (12%)	2.1 (12%)	2.4 (12%)	2.7 (14%)	2.4 (13%)
Construction	2.0 (11%)	2.4 (13%)	2.8 (14%)	2.6 (14%)	2.7 (14%)
Oil and Petroleum	1.5 (8%)	1.4 (8%)	1.2 (6%)	1.1 (6%)	1.2 (6%)
International	1.0 (5%)	1.0 (6%)	0.6 (3%)	0.4 (2%)	0.5 (3%)
Domestic inter-modal	3.9 (21%)	3.8 (21%)	3.5 (18%)	3.4 (18%)	3.5 (19%)
Other	2.7 (15%)	2.6 (14%)	2.6 (13%)	2.7 (14%)	2.8 (15%)
<b>TOTAL</b>	<b>18.2 (100%)</b>	<b>18.1 (100%)</b>	<b>19.4 (100%)</b>	<b>18.7 (100%)</b>	<b>18.9 (100%)</b>
Infrastructure	0.8	0.9	1.2	1.2	1.2

*Source: National Rail Trends, Yearbook 2003-2004, SRA; NERA calculation: totals may not sum to 100 per cent due to rounding*

*Note: The infrastructure series excludes some trains that operate in possessions. The series is excluded from the total.*

Table 3.2 shows cross channel rail freight tonnages since 2000.

<sup>3</sup> National Rail Trends, SRA.

**Table 3.2**  
**Cross Channel Rail Freight Statistics**

Cross channel through rail freight (million tonnes)	
2003	1.7
2002	1.5
2001	2.4
2000	2.9

Source: Eurotunnel: <http://www.eurotunnel.com/ukcMain/ukcCompany/ukcAboutUs/ukpAboutUsTraffic>.

### 3.2. Freight Performance

Cancellations and delays of rail freight services are not monitored centrally nor are such statistics compiled for the whole industry as they are for passenger operators. We have discussed freight performance with industry stakeholders. The rest of this section is based on our discussions with those stakeholders.

#### 3.2.1. Domestic freight service quality

In discussions with the SRA it was argued that the freight market in Great Britain is already liberalised and that this has served to improve performance. Whilst delays do occur, performance tends to be better than for many rail freight services elsewhere in Europe. Indeed, many delays are caused by customers.

Before privatisation service quality was perceived to be poor, particularly in some commodity markets. Since privatisation, customers have been able to choose between suppliers and this has led to increased focus on the quality of service provided. For example, Freightliner Heavy Haul took much of the construction market by offering customers a more reliable service through the use of dedicated rolling stock. Other customers switched their business to GB Railfreight, which offered them a more flexible service. Railtrack encouraged market entry by making known that it was prepared to enter into long term contracts for the movement of engineering works and by buying new wagons. Competition from road hauliers is also thought to have led to improved service quality from FOCs. However, in some markets some customers are captive to rail. For example, some power stations are only allowed to deliver coal by rail as a condition of their planning consent. The ORR has recently issued a rule 14 notice to EWS claiming that it has abused its dominant position in the market for hauling coal.

EWS monitors the punctuality of its services and has provided us with some data. Table 3.3 shows EWS estimates of delays and cancellations of its services. These delays relate to the scheduled arrival time of the service. They are not all the fault of EWS: some of these delays are caused by infrastructure managers and by customers.

**Table 3.3**  
**Domestic Rail Freight: EWS Delays and Cancellations**

<b>Duration of delay</b>	<b>Proportion of services delayed/cancelled</b>
On time to 30 minute delay	85%
30 minutes to one hour	5%
More than an hour	10%
Service cancelled (due to operator)	0.2% - 0.3%

*Source: Provided to NERA by EWS.*

Data describing the performance of Freightliner is presented in Table 3.4. This relates to the proportion of services for which Freightliner meets its contracted obligations with its customers (this may include the scheduled time of unloading for example) rather than service punctuality. These data are very different from those which we have from EWS and are not comparable.

**Table 3.4**  
**Domestic Rail Freight: Freightliner Services Meeting Contracted Obligations**

	<b>2001/2002</b>	<b>2002/2003</b>	<b>2003/2004</b>
Freightliner	89%	97%	98%
Freightliner HeavyHaul		99%	99%

*Source: News liner, The Staff Magazine of the Freightliner Group, Summer 2003, Issue Number 27.*

### **3.2.2. International freight service quality**

There is a very limited amount of international rail freight traffic that originates in the UK. Some of this is transported on rail - sea - rail routes and the rest is hauled through the Channel Tunnel. Only EWS offers all-rail services to mainland Europe. EWS locomotives haul freight through the tunnel where SNCF then hauls wagons to onward destinations. EWS operates its services into France under an agreement that it inherited from British Rail. EWS co-operates similarly with the incumbent national rail operator in each European country that it operates services to.

There have been quality problems with these services recently. These have been exacerbated by incidents such as industrial disputes in France and problems with illegal immigrants (after escaping from the camp at Sangatte) attempting to stow away on freight trains travelling through the Channel Tunnel. Service quality in mainland Europe can be very poor. Stakeholders have argued that services are more reliable on major routes where competition exists, such as from Italy to Rotterdam.

The cost of operating through the Channel Tunnel is high. Therefore it is unlikely that other freight operating companies would seek to offer direct international services in the short to medium term. Freightliner has confirmed that they have no plans to do so.

### 3.3. The Relevance of Delays to Rail Freight Customers

The implicit assumption behind the draft Regulation is that reductions in delays and cancellations would be highly valued by customers. Stakeholders have argued to us that for many goods this would not be the case; and train delays are often irrelevant provided that the final handover of goods to the customer is on time.

In Table 3.5 we summarise the relevance of train delay as a performance measure for each category of rail freight commodity, on the basis of our discussions with stakeholders.

**Table 3.5**  
**Relevance of Train Delay as a Performance Indicator**

Commodity	Rail Freight Moved (2003/04)	Relevance (* = not relevant; ☆☆ = some relevance)
Coal	31%	* Delivered to a stockpile. Main requirement is tonnes delivered per period
Metals	13%	☆☆ Eg hot rolled coil must be delivered whilst still hot.
Construction	14%	* Delivered to a stockpile. Main requirement is tonnes delivered per period
Oil & Petroleum	6%	☆ May need to co-ordinate loading /unloading
International	3%	☆☆ EWS already has punctuality performance clauses in some international contracts
Domestic Intermodal	19%	☆ Goods must be delivered to meet ship, but often acceptable to deliver two days early.
Other	15%	☆ Relevant for some production lines
Total	100%	

*Source: rail freight moved (tonne km) data from National Rail Trends, Yearbook 2003-2004, published by the SRA; other information from discussions with industry*

### 3.4. Current Industry Practice

Freight contracts in Great Britain are negotiated bilaterally. Customers are able to negotiate performance clauses into their contracts if they wish to do so. Such clauses might usually be requested when a contract is offered by tender. This allows the customer to specify the aspects of performance that are important to it and to negotiate compensation that may become due if the performance targets are not met. Customers and FOCs then monitor whether the terms of the contract have been met. FOCs have teams of staff that monitor

whether the contractual terms are met and organise the payment of compensation, where appropriate.

There is no regulatory requirement on FOCs to record the number of cancellations and the duration of delays incurred. However, we understand that FOCs do monitor performance in this way but that some firms do not retain these records.

Performance regimes form part of the track access agreements between Network Rail and FOCs. Although Network Rail does monitor performance with respect to FOCs, it is limited to instances where Network Rail delays FOCs or FOCs delay train operating companies. Network Rail does not monitor FOC-on-FOC delays, because they do not form part of the performance regimes. We understand that payments associated with the FOCs' performance regimes are small.

## 4. OPTIONS

### 4.1. Summary of Options

Table 4.1 summarises the options that we have considered in this study.

**Table 4.1**  
**Summary of Options**

	<b>Brief description</b>
Option 1	Base case: the status quo
Option 2	Full implementation of the EC proposal
Option 3	Reducing the scope of the Regulation to cross border rail freight
Option 4	Publishing key performance indicators

We now describe each of these options in turn.

### 4.2. Option 1 - Base Case

The base case, with which all other options are to be compared, is a do-minimum.

We would assume that the status quo remains under this option; namely that:

- International rail freight is regulated by COTIF.<sup>4</sup> Under COTIF, compensation for loss of or damage to goods carried is required. Compensation is also required if goods are not delivered within a maximum time, but this requirement is not demanding so has little impact.
- In Great Britain obligations on quality are agreed between freight operating companies (FOCs) and their customers bilaterally; performance clauses in contracts are not universal;
- Other Member States may regulate rail freight quality, though performance for many corridors is poor;
- Existing EC legislation, including the First and Second Rail Packages<sup>5</sup> will have been implemented

Projecting the impacts forward, market liberalisation in continental Europe should increase competition for international rail freight services.

#### **4.3. Option 2 – Full Implementation of the EC Proposal**

Fully implementing the proposal would require contracts for the movement of freight by rail to include standard performance clauses that would set minimum levels of compensation to be paid by both parties in the event of delay to or cancellation of freight trains. The level of payment would also be set in the case of train load contracts. The proposal would also establish the right of rail freight companies to claim back compensation that was paid when the delay was caused by the infrastructure provider.

#### **4.4. Option 3 – Reducing the Scope of the Regulation to Cross-Border Freight**

As option 2, except the Regulation would only be applied to rail freight that was to be hauled across borders. For the UK this means services through the Channel Tunnel.

#### **4.5. Option 4 – Key Performance Indicators**

The proposed Regulation would not be implemented. Instead, freight performance data would be collected, analysed and published, allowing customers to compare the performance of different operators by commodity type and route.

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<sup>4</sup> Convention concerning International Carriage by Rail, 9 May 1980. A revised version is due to come into force in 2005.

<sup>5</sup> Directives 2001/12, 2001/13, 2001/14, 2004/49, 2004/50, 2004/51 and Regulation 881/2004

## 5. BUSINESS SECTORS AFFECTED

Fully implementing the EC proposal (option 2) would have an impact on all UK rail freight companies, their customers and infrastructure managers. Four rail freight companies operate in the UK: Direct Rail Services; EWS; Freightliner; and GB Railfreight. These and their subsidiaries are listed in Table 5.1 which also shows the number of employees, revenue and profit of each. Bulk transit customers tend to be major industrial businesses but inter-modal customers include freight forwarders, which are usually much smaller businesses. Network Rail, CTRL UK,<sup>6</sup> Eurotunnel and around 600 operators of independent freight terminals would be affected as these infrastructure managers become liable to pay compensation for delays that they cause.

**Table 5.1**  
**Freight Operating Companies**

<b>Company</b>	<b>Employees</b>	<b>Revenue (£million)</b>	<b>Profit before tax (£million)</b>
Direct Rail Services	130	20	2.9
EWS	5,725	495	38
EWS International	463	25	(1.8) loss
Rail Express Systems*	0	7	1.4
GB Railfreight	75	11	1
Freightliner Heavy Haul	318	57	8
Freightliner	1,085	129	2

*Source: Rail Industry Monitor (2004); all data are for Financial Year 2003.*

*\* Rail Express Systems is a subsidiary of EWS that provides services to express mail and parcel companies. We understand that EWS no longer operates trains for Royal Mail.*

If the scope of the Regulation were reduced so as to apply to cross border rail freight only (option 3) then only EWS, its customers that use it to ship freight through the Channel Tunnel and the managers of the infrastructure that those trains travel on would be affected. Network Rail, CTRL UK and Eurotunnel would still need to monitor freight delays but far fewer of the independent freight terminals would be affected.

If the proposal to regulate contractual clauses were abandoned in favour of the publication of key performance indicators for rail freight (option 4) the four rail freight companies would be affected through the impact on customers' decisions, if any, due to the availability of the performance data. The monitoring of performance would need to be carried out. It

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<sup>6</sup> CTRL UK is responsible for the Channel Tunnel Rail Link which has been built with facilities to handle freight trains though it is not clear as to the extent that it will be used by freight trains.

may be that the railway undertakings would have to monitor and report statistics regarding their own performance. Alternatively, another organisation could take on this role: Network Rail may be well placed to do this but it would have to be agreed with them.

We note that no freight is currently carried on Northern Ireland Railways so their costs would not be affected by the proposal unless freight services were to resume.

## **6. EQUITY AND FAIRNESS**

The benefits and costs of the proposal accrue to FOCs and their customers. These customers are predominantly large industrial organisations and freight forwarders. Therefore we do not expect that vulnerable groups would be disproportionately affected by this Regulation.

## 7. BENEFITS

### 7.1. Option 1: Do Minimum

Option 1 is the base case, do-minimum. Benefits are measured relative to the base case.

This option allows customers and FOCs the freedom to negotiate contractual performance clauses that focus on the criteria that are important to the customer, at rates which adequately reflect their costs.

### 7.2. Option 2: Full Implementation of the EC Proposal

Option 2 is the European Commission's proposal. Implementing the Regulation would lead to all rail freight contracts having to include clauses on the quality of service as listed in Table 7.1. If these clauses were not included in the contract then the contract would not be enforceable.

**Table 7.1**  
**Proposed Compulsory Quality Clauses for Rail Freight Contracts**

#### **Compulsory contractual clauses**

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Agreed time of handover of goods or wagons or trains between the FOC and its customer
Arrival time and compensation for delays
Compensation in the event of loss of or damage to goods
Compensation for cancellation of the train by the FOC
Compensation for cancellation of the train by the customer

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*Source: COM(2004) 144 final. Article 3.*

The possible benefits of regulating quality of rail freight take the forms shown in Table 7.2.

**Table 7.2**  
**Benefits Associated with the Proposed Regulation**

<b>Benefits</b>	<b>Parties Directly Affected</b>
Possible service quality improvements	Rail freight customers
<b>Transfer</b>	<b>Parties Directly Affected</b>
Compensation	Benefit to rail freight customers; cost to FOCs and infrastructure managers
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>
Possible greater demand for rail freight as a result of (perceived) improvement in service quality, and compensation	Road users, society

We now examine each of these potential benefits.

### 7.2.1. Increased compensation to rail freight customers

Increased compensation to rail freight customers is not a benefit per se. It is a transfer between FOCs and their customers. There would be costs associated with administering such a scheme. We consider those in Section 8.2.2.

Table 7.3 summarises the provisions for compensation payable by operators in the proposed Regulation. We note that the proposal does not say how long delays must be before compensation must be paid. The proposal also makes provision for customers to pay compensation to FOCs if they cancel or delay trains.

**Table 7.3**  
**Compensation Payable in the Event of Delays**

	<b>Block Trains</b>	<b>Wagonload Services</b>
<b>Delays:</b>	To be agreed between the parties in the range 5 to 25 per cent of the transport price	To be agreed by the FOC and their customer
<b>Lack of information about delays:</b>	Not less than 5 per cent of the transport price	
<b>Loss of goods</b>	Market value of the goods up to €75 per kg*	
<b>Damage to goods</b>	Make good loss of value up to €75 per kg*	
<b>Consequential damages</b>	Up to 4 times the transport price if loss results from delayed arrival	

\* A higher value will be paid if the customer declares a market value above €75 per kg transported

For illustrative purposes we estimate the compensation payable due to delays assuming that it becomes due once a train is delayed by more than an hour.<sup>7</sup> 10 per cent of EWS services are delayed by an hour or more. We assume that punctuality is similar across the industry<sup>8</sup> in order to estimate a range for the total amount of compensation that would be paid under this option. Our minimum scenario considers a situation where all wagonload contracts agree a zero rate of compensation and block train contracts allow for compensation for delay to be 5 per cent of the transport price. Our maximum estimate assumes that all freight contracts allow for compensation at 25 per cent of the transport price for delays of more than one hour. On this basis, we estimate that the total compensation payable for delays would be between £2 million and £18 million a year. These are estimates of the flow of money between infrastructure managers, FOCs and rail freight customers. They are transfer payments, and not net benefits or costs per se. Limitations to performance data mean that we are not able to assess the net payment or to say which organisations would receive it.

We would expect that UK FOCs could meet the requirement to provide information about delays to their customers on almost all occasions as all UK FOCs monitor their trains through control centres and it is existing practice to inform customers of delays. For international rail freight through the Channel Tunnel it would be more difficult to meet the requirements because EWS does not operate the services once they reach France. They would have to rely on other operators informing them about delays, and we understand that other operators do not always know when delays occur, so we expect that compensation would become due more frequently. Although the partner operators would be liable for such compensation payments, there is some doubt about whether EWS would be able to reclaim such payments from foreign operators.

In the cases of loss of or damage to goods we think that the Regulation would not change the current situation. UK FOCs would continue to make good their customers' direct loss if the FOC damages or loses the goods for which they have been paid to haul.

There is concern in the industry that compensation for consequential losses could be considerable. As there is no current comparison available in other industries we are not able to assess the number of claims that might be made under this provision. Given current performance levels we can estimate the very most that could be paid to customers through claims for consequential loss. As around 10 per cent of services are delayed and consequential loss claims can be for up to 4 times the transport price it follows that the very most that could be paid would be 40 per cent of industry revenue, £297 million a year. This is very much more than is likely to be paid under the Regulation but the information needed to make a central estimate is not available.

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<sup>7</sup> We are assuming that the Regulation is to be quite strict about delays. Current arrangements for international freight, under COTIF, provide for compensation to be paid in the event of severe delay but the requirement is not testing

<sup>8</sup> EWS earns around 70 per cent of industry revenue. Freightliner was unable to provide information on delays. The data that we have for Freightliner relates to their meeting contractual obligations rather than punctuality.

Long standing customers may be less likely to claim such compensation for individual journeys, preferring a less-contractual partnering approach with FOCs. They may well seek to claim compensation for chronic performance failures, however, such as were experienced following the Hatfield accident. The Regulation would lead FOCs, and infrastructure managers, to be more vulnerable to such claims should such a situation occur. Less regular customers, such as those that participate in the spot market for containers, may be more likely to make claims for consequential damages because their relationship with FOCs would be fully formalised, and the added costs, administration and risk might be such that the services badly affected by such claims are discontinued.

### **7.2.2. Possible service quality improvements**

The intention of the proposed Regulation is to incentivise FOCs to improve the quality of service that they offer to their customers, particularly with regard to time keeping. Without regulation, FOCs will invest in quality up to the point where the marginal cost of increasing quality further is equal to the additional revenue it would generate (through increased demand or an increase in customers' willingness to pay for the service). With this proposed Regulation, the FOC would need to consider two additional components in order to maximise revenue: we would expect that FOCs would invest in improving the regulated aspects of service quality up to the point where the cost of further improvements was equal to the marginal revenue it would generate plus the level of compensation that would be saved minus the customer's willingness to pay for that compensation. This would necessarily be at least as much as that without regulation, so service quality would be static or improve.

In Section 3.3 we discussed the importance of punctuality to different groups of rail freight customers according to the commodity that they transport by rail and identified, in Table 3.5, the relative importance of punctuality of delivery to shippers by commodity. Under the proposal FOCs face a uniform incentive to improve service quality across commodity markets rather than targeting improvements towards the customers that would value the improvements most highly. In the case of punctuality, FOCs would be incentivised to improve performance where it is most easy for them to do so, in order to reduce the amount of compensation that they would have to pay. Where customers value punctuality highly FOCs are more likely to be investing in it already because otherwise they would face the prospect of losing the customer to a competitor in the liberalised UK market. It therefore follows that the benefit to customers of service quality improvements (associated with this Regulation) would be low because they would predominantly be provided for customers that place the lowest value on them. In the UK, it is most likely that punctuality can most easily be improved where customers value it least, for example, where the customer requires that a stockpile be maintained.

By definition, the benefits to customers of reduced delays will be less than the additional costs of reducing those delays. If this were not true the customer would be willing to pay for the delay to be reduced under the do minimum option.

It might be argued that, in cases where rail freight operators have considerable market power, such as in some other European countries, the Regulation would serve the role of replacing market incentive to provide appropriate quality standards. But whilst, for the reasons explained above, such regulation might result in improved service quality, it would not necessarily deliver net benefits to customers. This is because, in the absence of price regulation, the monopolist would be able to raise prices above their already inflated levels. In addition, representatives in the industry have expressed concern that large state monopolies may not be sufficiently sensitive or flexible to respond to such a change in incentives by improving service provision, and may simply pass on the extra costs of compensation to customers.

### 7.2.3. Increased demand to haul freight by rail

The paying of compensation and some improvement in service quality given fixed prices would be expected to lead to increased demand for rail freight transport. However, as the cost of the service quality improvement is greater than its value to the customers that receive it and – if net payments were made to customers – compensation would have to be funded we would expect that charges for rail freight services would increase sufficiently to lead to a net reduction in demand.

### 7.2.4. Summary of benefits for option 2

<b>Benefits</b>	<b>Parties Benefiting</b>	<b>Annual Benefits</b>
Possible service quality improvements	Rail freight customers	Less than the cost of implementing them
<b>Transfer</b>		
<b>Parties Directly Affected</b>		
Compensation	Rail freight customers:	
	For delays	£2 million - £18 million
	For consequential losses	Up to £300 million
<b>Dynamic Effects</b>		
<b>Parties Directly Affected</b>		
Possible greater demand for rail freight as a result of (perceived) improvement in service quality, and compensation	Road users, society	Positive effect but this would be outweighed by increased charges leading to reduced demand

## 7.3. Option 3: Reducing the Scope of the Regulation to Cross-Border Freight

Limiting the scope of the proposal so that it covered only international freight haulage would reduce the total level of the benefits but focus them on the sector of the industry where service quality has been least good.

### **7.3.1. Compensation for delays**

This is not a benefit per se. It is a transfer between FOCs and their customers. There would be costs associated with administering such a scheme. We consider those in Section 8.3.2.

For illustration we have calculated the range in which total compensation flow between operators, infrastructure managers and customers would be expected. This is based on recent performance, public information and our discussions with EWS, the only FOC that operates an all-rail service to mainland Europe.

Currently, about 20 per cent of international services are delayed by more than an hour but less than a day, and 10 to 30 per cent of services are delayed by a day or more. Applying the same scenarios as for option 2 to these performance statistics indicates that the compensation that could be paid under this option would be in the range of £250,000 to £3 million a year. However, our understanding is that international block train customers already receive up to 10 per cent compensation for the delay so implementation of this option might not have a significant effect in terms of any increase in the amount of compensation that customers receive.

Claims for consequential damages could have a major impact on the industry. Using the same method as described in Section 7.2.1 we are able to calculate that the maximum payable, given current performance would be £50 million, twice industry revenue.

### **7.3.2. Possible service quality improvements**

The majority of delays to international rail freight shipments are caused on mainland Europe. About 60 per cent of these are caused by the foreign operators and the remainder by the infrastructure manager.

It is uncertain as to whether EWS would, in practice, be able to claim compensation payments back from foreign operators and infrastructure managers. If the incentive to improve performance is not passed through to those that cause the delays then performance would not improve at all.

Assuming that the costs of compensation are correctly attributed, then there may be improvements in service quality on mainland Europe which would benefit UK businesses using such services. However, as we discussed in section 7.2.2, in the absence of price regulation this will not necessarily result in benefits to customers because monopoly providers would be able to increase prices. And in any case monopoly providers may not be sufficiently flexible to respond to minor changes in service quality incentives.

### **7.3.3. Increased demand to haul freight by rail**

If prices were fixed, the paying of compensation and some improvement in service quality would be expected to lead to increased demand for rail freight transport. However, as the

cost of the service quality improvement is greater than its value to the customers that receive it and – if net payments were made to customers – compensation would have to be funded we would expect that charges for rail freight services would increase sufficiently to lead to a net reduction in demand.

#### 7.3.4. Summary of Benefits for Option 3

<b>Benefits</b>	<b>Parties Benefiting</b>	<b>Annual Benefits</b>
Possible service quality improvements	International Rail freight customers	Less than the cost of implementing them
<b>Transfer</b>	<b>Parties Directly Affected</b>	
Compensation	Rail freight customers:	
	For delays	£250,000 - £3 million
	For consequential losses	Up to £50 million
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>	
Possible greater demand for rail freight as a result of (perceived) improvement in service quality, and compensation	Road users, society	Positive effect but this would be outweighed by increased charges leading to reduced demand

#### 7.4. Option 4: Key Performance Indicators

The central collection and publication of standardised FOC performance data would enable FOCs' customers to compare the performance of each of the FOCs that is able to offer a service to them.

There will only be a benefit from this option if there are problems with customers being unable to gain performance information now. As most customers regularly use rail freight services and have done for a considerable time it is unlikely that they are ill-informed. However, the proposal could encourage new customers to use rail freight if they currently perceive performance to be worse than it is. In the remainder of this section we consider the potential impact of this option assuming that there are some information problems in the industry.

##### 7.4.1. Possible service quality improvements

In the longer term publishing performance data could lead to service quality improvements in the areas monitored because FOCs would be incentivised to improve those aspects of performance so that they would have evidence of their relative performance that could be used to some extent for marketing to new customers and customers of competitors with less good measured performance.

In Section 7.2.2 we argued that FOCs would be incentivised to improve punctuality for the customers that value it least under option 2. This would still be the case if punctuality statistics were only published in aggregate. However, under this option there could be greater flexibility in what exactly was monitored and published and even scope for this to be changed over time if it were found that the initial performance indicators were not useful for rail freight customers.

There would be no compensation payable to customers under this option so the incentive to reduce delays is less than it would be under option 2 because there is not a financial penalty for not doing so. It is not possible to accurately identify how much of an incentive the FOCs would be under because we do not know how their customers and potential customers would respond to the proposed published performance statistics.

If customers have poor access to information on quality under the do minimum, then this proposal would be capable of addressing a genuine market failure. The improvements in service quality would then more than outweigh the costs of the improvements, provided that the costs of monitoring and processing performance data were not too onerous. However, the difficulty of collecting useful performance indicators should not be underestimated in a sector where customers have a great variety of performance needs.

#### **7.4.2. Increased demand to haul freight by rail**

The publication of rail freight performance statistics is unlikely to have a significant impact on the demand for rail freight services though it could potentially attract some new custom. If this were to attract new customers the benefit would not be offset by increased charges associated with the costs of the scheme.

#### **7.4.3. Summary of Benefits for Option 4**

<b>Benefits</b>	<b>Parties Benefiting</b>	<b>Annual Benefits</b>
Possible service quality improvements	Rail freight customers	Some benefits if access to information is poor
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>	
Possible greater demand for rail freight as a result of improvement to service quality	Road users, society	Potential positive impact

## 8. COSTS

### 8.1. Option 1: Do Minimum

Option 1 is the base case, do-minimum. Costs are measured relative to the base case.

### 8.2. Option 2: Full Implementation of the EC Proposal

Option 2 is the European Commission's proposal.

The costs of regulating quality of rail freight take the form shown in Table 8.1.

**Table 8.1**  
**Costs Associated with the Proposed Regulation**

<b>Implementation Costs</b>	<b>Parties Directly Affected</b>
Costs of measuring and monitoring performance.	FOCs; infrastructure managers; rail freight customers
Costs of administering compensation	FOCs; infrastructure managers; rail freight customers
Enforcement costs	FOCs; rail freight customers
<b>Transfer</b>	<b>Parties Directly Affected</b>
Compensation	Cost to FOCs and infrastructure managers
<b>Policy Costs</b>	<b>Parties Directly Affected</b>
Costs associated with improving service quality	FOCs, infrastructure managers
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>
Modal shift away from rail freight as a result of higher rail freight costs	Road users; society

#### 8.2.1. Implementation costs

The choice of how the proposal is implemented will considerably influence the costs and who incurs them. If the scheme were to be centrally controlled and enforced then the costs would be greater and they would impact on more organisations. If the parties to the contracts took responsibility for monitoring the scheme with enforcement action – if required – taken through law the costs would be significantly lower and fewer organisations would be affected.

#### 8.2.1.1. *Costs of monitoring performance and paying compensation*

There would be bi-directional compensation cash flows between infrastructure managers, FOCs and rail freight customers. Each would need to monitor performance and record it in order to ensure the correct compensation were received. Additionally, infrastructure managers and FOCs would need to identify and record the cause of the delay to ensure that the correct party ultimately paid the compensation.<sup>9</sup> There would be costs associated with this.

We discussed the current level of performance monitoring by FOCs in Section 3.4. Network Rail also monitors delays on its network in order to administer compensation payments through the track access agreements with railway undertakings. We do not know how much formal monitoring of FOC performance is undertaken by their customers.

On the basis of our discussions with EWS and Freightliner we have estimated the amount of additional work that would be required for FOCs and assumed that customers monitor performance too but that they devote fewer resources to this than the FOCs. We estimate that across all stakeholders an additional 11 full time equivalent roles would be created to carry out the additional work. We cost this at £28,000 a year for each full time equivalent role. This includes a contribution for overhead costs. In total then, we estimate that the costs of monitoring performance and administering compensation payments would be around £300,000 a year. We would expect that broadly 50 per cent of this cost would be incurred by FOCs and a little over a quarter by their customers. The remainder would fall primarily on Network Rail.

There would also be some initial set up costs associated with changing FOCs' track access agreements so that Network Rail paid compensation for delays in line with the regulatory requirement. Whilst there are currently no performance agreements between FOCs and independent freight terminal operators, LCR, Eurotunnel, SNCF or other infrastructure managers in continental Europe, some performance agreements will be imposed as part of implementing Directive 2001/14 in the do-minimum option. These track access arrangements may also need to be changed in light of the Regulation. We think that these costs would be quite small though and have not quantified them.

#### 8.2.1.2. *Enforcement costs*

Enforcement costs would be minimal if an external agency were not responsible for enforcing the Regulation. FOCs or their customers would be able to pursue unpaid compensation, either way, through the courts if unable to reach agreement. This would be costly if it were required but the threat of legal action and the ability to withhold future

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<sup>9</sup> Under the proposal FOCs would be able to reclaim compensation payments from infrastructure managers where they cause the delay. Similarly, customers would be liable to pay compensation if they cause trains to be delayed.

payments under a contract would, we think, act as a sufficient incentive for the Regulation to be enforced in the UK. Therefore, the costs would be very low.

### **8.2.2. The payment of compensation**

Compensation paid would exactly mirror that received. We give details of this in Section 7.2.1. The total amount paid out is estimated to be in the range of £2 million to £18 million a year.

### **8.2.3. Costs of improving service quality**

The Regulation incentivises FOCs and infrastructure managers to invest in service enhancements until the cost of further investment is greater than the compensation that would have to be paid. Because we do not know how costly delay reduction would be for FOCs we cannot estimate the cost of service quality improvements. However, we can be sure that there will be a net disbenefit from service improvements because the cost of improving service quality is greater than customers willingness to pay for them. If this were not true then both FOC and customer could become better off by changing their contractual terms under the do minimum option.

### **8.2.4. Dynamic effects**

As discussed in Section 7.2.3 the net impact on the demand for rail freight will be negative. The Regulation would lead to increases in FOCs' costs and these would, in turn, lead to increased charges to customers. In some cases, this would result in a fall in demand for rail freight and increased road freight, with associated increases in congestion and pollution.

### 8.2.5. Summary of costs for option 2

**Table 8.2**  
**Summary of Costs for Option 2**

<b>Implementation Costs</b>	<b>Parties Directly Affected</b>	<b>Annual Cost</b>
Costs of measuring and monitoring performance.	FOCs; infrastructure managers; rail freight customers	£300,000
Costs of administering compensation	FOCs; infrastructure managers; rail freight customers	
<b>Transfer</b>	<b>Parties Directly Affected</b>	
Compensation	Cost to FOCs and infrastructure managers	£2 million - £18 million
<b>Policy Costs</b>	<b>Parties Directly Affected</b>	
Costs associated with improving service quality	FOCs, infrastructure managers	Not costed but more than the resulting benefits
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>	
Modal shift away from rail freight as a result of higher rail freight costs	Road users; society	Not costed but greater than any increase in demand from improved service or receipt of compensation

### 8.3. Option 3: Reducing the Scope of the Regulation to Cross-Border Freight

Option 3 is the European Commission's proposal but with the scope of the Regulation restricted to international rail freight only. As with the benefits described in Section 7.3 the costs associated with the proposal are primarily compensation costs and would depend very much on whether levels of compensation were prescribed for wagonload contracts.

#### 8.3.1. Implementation costs

Implementation costs would be incurred as they are for option 2, described in Section 8.2.1, but they would be less because only 3 per cent of the market by value would be subject to the Regulation under this option. If the costs were to be pro-rated to the volume of international business as a proportion of the total rail freight hauled then we would expect that the total would be around £10,000 a year. However, delays to international freight tend to be more frequent and more severe than delays to domestic freight services and foreign infrastructure managers would be involved too, and this would complicate the chain of compensation payment. Therefore we expect that the costs of monitoring performance, administering compensation payments and enforcing the payment chain through

infrastructure manager, EWS and its customers would be considerably higher, around £100,000 a year. This estimate allows for one full time equivalent staff member at EWS, another across (or representing) customers and Network Rail. Foreign operators/infrastructure managers would also incur costs but we are not concerned with those.

### **8.3.2. The payment of compensation**

The payment of compensation is a transfer from infrastructure managers and EWS to international freight customers. It would mirror that estimated in Section 7.3.1, £250,000 to £3 million a year. We understand that most of the severe delays to these services are caused overseas so the net flow of compensation would be to customers from foreign operators or infrastructure managers. The contracting freight company (ie EWS) would be responsible for making these payments though. Customers would also be required to compensate operators and infrastructure managers for delays that they cause.

### **8.3.3. Costs of improving service quality**

The cost of international service enhancements incurred in the UK would be roughly proportionate to those described under option 2 for the entire UK market. Despite international service quality being worse than domestic service quality we understand that many of the delays are incurred abroad. UK stakeholders (in this case EWS and Network Rail) can do little about these delays and are not in a position to invest in reducing their frequency or severity. The investment that EWS and UK infrastructure managers would be incentivised to make would be greater than the benefit received by rail freight customers.

### **8.3.4. Dynamic effects**

As discussed in Section 7.3.3 the net impact on the demand for rail freight will be negative. The Regulation would lead to increases in FOCs' costs and these would, in turn, lead to increased charges to customers. These price changes would be incurred by the customers for whom alternative transport methods are least accessible.

### 8.3.5. Summary of Costs for Option 3

<b>Implementation Costs</b>	<b>Parties Directly Affected</b>	<b>Annual Cost</b>
Costs of measuring and monitoring performance.	EWS, Infrastructure managers; international rail freight customers	£100,000
Costs of administering compensation	EWS; infrastructure managers; rail freight customers	
<b>Transfer</b>	<b>Parties Directly Affected</b>	
Compensation	Cost to EWS and infrastructure managers	£250,000 - £3 million
<b>Policy Costs</b>	<b>Parties Directly Affected</b>	
Costs associated with improving service quality	EWS, infrastructure managers	Not costed but more than the resulting benefits
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>	
Modal shift away from rail freight as a result of higher rail freight costs	Road users; society	Not costed but greater than any increased demand associated with improved performance or receipt of compensation

## 8.4. Option 4: Key Performance Indicators

There would be additional costs associated with the specification, collection and compilation of prescribed performance statistics. These would be dependent on the complexity of the statistics monitored, and there would be a trade-off between quality of information and cost of compilation.

If the data collected were restricted to that required by the EC's proposal, the costs to FOCs would not be so great as those that would be incurred by them under option 2 because there would be no compensation scheme to administer. Nor would there be any cost of this option to rail freight customers or infrastructure managers. In such circumstances, we estimate that the cost to FOCs would be approximately two thirds of that which they incur under option 2, ie around £100,000.

An impartial body would be required to be responsible for publishing the statistics and verifying their accuracy. This would have associated costs.

If information barriers are preventing the market from working efficiently, and if the performance data can be appropriately specified to overcome information barriers that customers have, the FOCs would be incentivised to improve service quality efficiently, so that their costs would be less than the additional revenue that customers would be willing to

pay (either through increased demand or increased tariffs). This could have the potential to increase demand for rail freight, provided that the costs of the scheme were not too onerous.

#### 8.4.1. Summary of costs for option 4

<b>Implementation Costs</b>	<b>Parties Directly Affected</b>	<b>Annual Cost</b>
Costs of measuring and monitoring performance.	FOCs	£100,000, if simply measuring delays and cancellations
Costs of administering scheme	Impartial body	Not quantified.
<b>Policy Costs</b>	<b>Parties Directly Affected</b>	
Costs associated with improving service quality	FOCs	Less than the benefits of service quality improvements
<b>Dynamic Effects</b>	<b>Parties Directly Affected</b>	
Potential increase in rail freight as a result of better information concerning performance and improvements in service quality	Road users; society	Contingent on useful statistics being published, and modest reporting costs

## 9. THE IMPACT ON SMALL FIRMS

The four FOCs operating in Great Britain are not small firms. We understand that large companies, if anything, are disproportionately represented amongst the rail freight customers. Therefore we do not anticipate that there will be a disproportionate impact on small firms. However, some freight forwarders may be classed as small firms and the impact on their businesses could be severe if consequential damages were allowed for wagonload haulage contracts.

The proposal potentially has a secondary impact, through the reclamation of compensation payments from infrastructure managers, on small firms in the UK. There are around 600 independent freight terminals in the UK. We understand that these are not small businesses:<sup>10</sup> in the main these are private sidings owned by the rail freight customers, which are major industrial firms.

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<sup>10</sup> The representative that we spoke to from the Rail Freight Group was not aware of any small businesses operating independent freight terminals in the UK.

## **10. COMPETITION ASSESSMENT**

The options considered in this report would lead to increases in the operating costs of the businesses identified in Section 4. The increased administrative costs would be incurred approximately in proportion to the volume of trainload hauling that each of the firms is involved in because it is these contracts that would be subject to the regulation of their terms. This would not distort on-rail competition between firms because any firm offering the service would face similar costs of monitoring the contract. The regulation could distort competition between rail and other modes, however; in particular, road haulage is not subject to similar quality regulation.

## 11. SUMMARY

Table 11.1 shows the annualised costs and benefits for each of the options that we have considered. We have been unable to quantify several aspects of the costs and benefits of the proposal. Nevertheless, we are confident that for each option the costs would outweigh the benefits because the value of improved service quality to the customers that would receive it under the options is less than their willingness to pay for it. If the customers' valuation of the realisable service improvements were greater than the costs of providing it they would be paying for it already.

**Table 11.1**  
**Summary of Quantified Costs and Benefits, including Transfer Payments**

Option	Total Benefit per Year	Total Cost per Year
1 Base case: do minimum	N/A	N/A
2 Full implementation of the EC proposal	£2 million - £18 million plus up to £300 million for consequential losses	£2.4 million - £18.4 million plus payments for consequential losses
3 Reduced scope: international freight	£250,000 - £3 million plus up to £50 million for consequential losses	£400,000 - £3 million plus payments for consequential losses
4 Key performance indicators	Benefits may exceed costs under certain conditions	

The level of transfer payments could be very large under the options that we have considered. Table 11.2 shows the quantifiable impact of the options abstracting from these payments.

**Table 11.2**  
**Summary of Quantified Costs and Benefits, net of Transfer Payments**

Option	Total Benefit per Year	Total Cost per Year
1 Base case: do minimum	N/A	N/A
2 Full implementation of the EC proposal	Less than the costs	At least £350,000
3 Reduced scope: international freight	Less than the costs	At least £150,000
4 Key performance indicators	Benefits may exceed costs under certain conditions	

It appears in Table 11.2 that the costs of the proposal may be small but this is misleading because it excludes some items. First: the compensation costs in options 2 and 3 would be part-funded through higher prices, which in turn would result in a reduction in freight by rail and an increase in freight by road, with impacts on road congestion, road safety and air pollution. Second, there are also costs associated with any improvements to service quality which have not been quantified.

The benefits may exceed costs in option 4 (the option where performance statistics are published). But this would only be true if certain conditions were satisfied:

- that under the do minimum option information concerning rail freight service quality was poor, leading to customers or potential customers failing to select the operators who would provide the service best suited to their needs.
- that the performance indicators published under option 4 overcame such an inadequacy in information; and
- that the costs associated with compiling such statistics did not outweigh the benefits delivered from the improved information.

Given that the market is characterised by few operators and predominantly large, well-informed, customers, we would expect problems with inadequate information to be limited. In addition, as customers have a large variety of performance requirements, the difficulty of specifying and measuring performance indicators that overcome such information problems should not be under estimated.

