Response to ORR consultation on PR18 reviews of Schedule 4 and 8

Freightliner Group

January 2016

This is the response of Freightliner Group Ltd. (FLG) encompassing its subsidiaries Freightliner Ltd. and Freightliner Heavy Haul Ltd to the Office of Rail and Road (ORR) Periodic Review 18 (PR18) consultation on Schedule 4 and 8.

Freightliner has been working with the Rail Delivery Group (RDG) over the last 2 years as part of their Review of Charges work programme. This has involved considerable work and engagement and we think that this work has helped to clarify the most important issues that should be considered by the ORR as part of their PR18 review.

Freightliner endorses the key points raised by the RDG in their response to this consultation:

1. ORR should build on the work that the industry has carried out through RDG's Review of Charges work programme.
2. ORR should review the possessions and performance regimes alongside the structure of charges.
3. At this early stage of PR18, it is important to be clear about the purpose of the possessions and performance regimes before considering the detailed aspects of the regimes.
4. The possessions and performance regimes should align with other industry arrangements.
5. ORR's reviews of the possessions and performance regimes should align with the industry's work on punctuality measures.

We also note that the RDG has offered to set up an industry group to work through the issues on the possessions and performance regimes. Freightliner supports this approach.

As noted above Freightliner is of the view that Schedules 4 and 8 should be considered holistically through an industry group, with the industry given the opportunity to suggest solutions. Whilst strongly supporting the principles of both the existing Schedules 4 and 8 there are some inconsistencies and perversities created by the detail of each regime and there is an opportunity in PR18 to adjust the regimes accordingly. We therefore lay out below some of our more detailed comments about the regimes and suggest areas where further work could be done.

Benefits of Rail freight

Rail freight is vital to the competiveness of the UK economy. It is a competitive and vibrant sector that has grown significantly since privatisation. Competition has helped drive efficiencies and the savings have been passed to customers, helping make businesses more efficient.

The resulting productivity gains for UK plc and the congestion and wider environmental benefits generated by rail freight are worth over £1.6bn per annum to the UK economy. These substantial benefits demonstrate the tremendous value for money rail freight offers government. Taking into account the support received from the taxpayer net of track access charges paid, rail freight generates between £6 and £25 of benefits to the UK economy for every £1 of taxpayer support.

Value for Money	High	Low
LEK Avoidable Cost	£311m	£134m
Freight Charges paid to NR	(£87m)	(£87m)
Revenue support (MSRS)	£18m	£18m
Net support to Freight	**£242m**	**£65m**

Economic benefits to UK plc.	£1,649m	£1,649m
Value for money	6.8	25.2

In considering the charges and incentives regime for CP6 we urge the ORR to take into account these benefits that rail freight delivers outside the railway balance sheet.

EXECUTIVE SUMMARY

- Freightliner supports the underlying principles and structure of Schedule 4 and 8 as liquidated sum regimes.

- The impacts of any changes to the Schedule 4 and 8 regimes must be considered as part of a holistic package of charges and incentives which impact on freight operators, noting that freight operators fully bear the risk of changes to access charges and the incentive regimes.

Schedule 4

- Freightliner supports the principle and structure of Schedule 4:
  - The liquidated regime provides certainty to freight operators and Network Rail when agreeing engineering access
  - It is easy for both freight operators and Network Rail to administer

- At this time of industry change it is important that the Schedule 4 regime is designed in such a way that it ensures that decisions are made on the best overall and economic basis and that the perversities of the existing regime are removed.

- The current regime does not fully compensate freight operator or their customers for the costs and losses caused by possessions or the wider impact on society of modal shift to road.

- The cost to NR of Schedule 4 payments must be considered in the context of the greater savings to Network Rail of an efficient and acquiescent possessions process.

- Consideration should be given to abandoning the Access Charge Supplement, paid by franchised passenger operators and funded by the government as part of franchise agreements. This would more clearly enable compensation rates to be set on the same basis for freight and passenger operators - leading to better holistic decisions by Network Rail.

- Category 1 claims should be on the basis of “per trigger”, rather than “per train”.

Schedule 8

- Freightliner supports the principle and structure of Schedule 8:
  - It is well understood by the industry
  - It leads to detailed understanding of the causes of delay which enables improvement plans to be put in place
  - It provides strong financial incentives to improve performance
  - Considering the volume of trains that operate on a daily basis, the administration of the regime is straightforward and does not create a great burden

- The changes to benchmarks and payment rates in CP5 have resulted in a > £10 million per annum swing in payments from freight operators to Network Rail for exactly the same performance levels. This has served to make rail freight less competitive against road and has increased the barrier to entry for potential new operators.

- Freightliner urges great care before making changes to benchmarks and payment rates. It is

easy to make changes that result in unintended consequences and which reward poor performance and punish improved performance over the long term.

- In Control Period 5 (CP5) the calculation of payment rates to passenger operators and freight operators was not undertaken on a consistent basis, and we are unaware of any justification for this difference. This has resulted in an unfair balance in the payment rate made by freight operators and that paid by freight operators. The value of delays that should be attributed to freight trains increased ahead of RPI during Control Period 4 (CP4) and the payment rates should have been updated to reflect this in CP5, but they were not.

- We recommend that the ORR undertakes further work in this area and that the calculation of freight operator payment rates is revised to include the marginal revenue effect.

- Freightliner strongly advocates that the proposals for revised benchmarks are reconsidered on the basis of long term incentives and behaviours, rather than looking at one control period or less in isolation.

- The Capacity Charge that is currently paid by freight operators is fundamentally flawed and this charge should be incorporated in an annual review of Schedule 8 benchmarks based on changes to train miles.

Schedule 4

1) The purpose of Schedule 4

The Schedule 4 contributes towards the additional costs incurred or losses made by freight operators when trains are diverted or cancelled because of Network Rail engineering possessions. The purpose of Schedule 4 is to incentivise Network Rail to make holistic industry decisions about when and how they take disruptive possessions. Because the current Schedule 4 does not cover the costs and losses incurred by freight operators this incentive is not wholly enabled, and this can lead to unbalanced decisions.

The Schedule 4 possessions regime must be considered in terms of the whole industry impacts rather than just in terms of the payments made by Network Rail to operators. We do not think that more payments to operators should be considered necessarily as a "bad thing" but must be considered in the wider context of the behaviours of all parties. The overall cheaper option may be for Network Rail to take access that requires more Schedule 4 payments to operators but makes larger savings elsewhere. The incentives must be set so that both parties are equally incentivised to engage and work more closely together to find the optimum solution.

The overall aim should be that possessions are financially neutral to operators if possession activity is carried out efficiently and that the regime incentivises the industry to minimise the impact of possessions on end-users. A regime that realistically reflects costs and losses of operators should produce the best value overall industry outcome.

The Schedule 4 regime for freight operators remained largely unchanged following the Periodic Review 13 (PR13) process. The overall mechanics of the freight Schedule 4 regime have worked effectively in the main and we support the continuation of a predominantly liquidated regime that is simple for both freight operators and Network Rail to administer. The Category 1 and 2 triggers are clear and generally cover the majority of incidents (although a 3rd liquidated category would reduce administrative burden further – see page

9). In the experience of Freightliner there are few disputes with Category 1 and 2 claims, and the process works well, with Network Rail quickly processing claims.

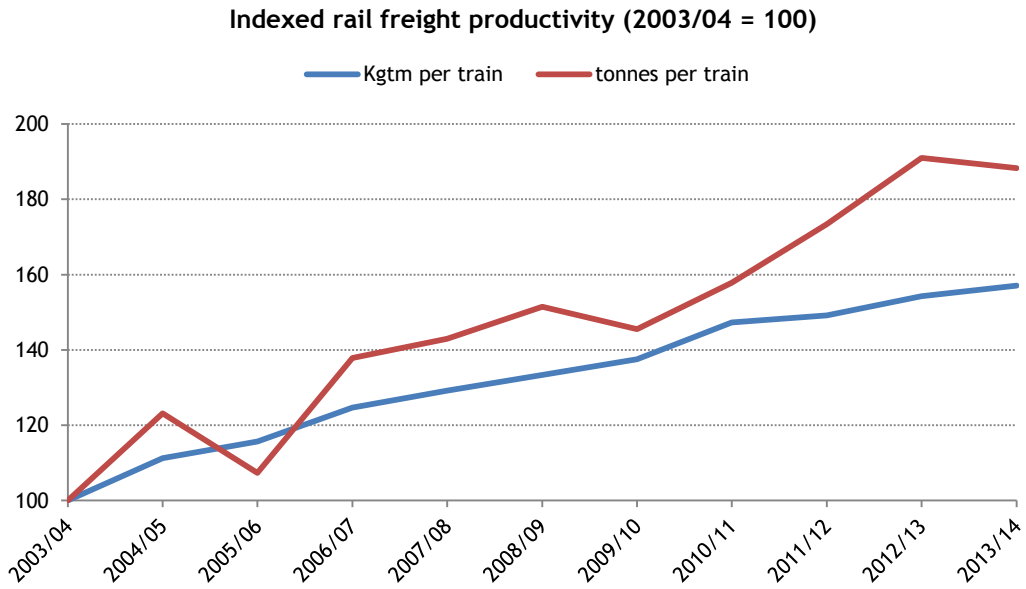
The clearly defined triggers at Category 1 and 2 make it straightforward for the operator to estimate the level of compensation they are likely to receive, which can help in informing decision making when working through the access planning process with Network Rail (NR).

2) The level of compensation received by operators

It is well documented that whilst the Schedule 4 regime does not cover the full costs and losses incurred by freight operators or the wider societal impact of traffic returning to the road. Instead the current regime provides some liquidated compensation at Category 1 and Category 2, with only cost reflective claims possible under Category 3, when there are major disruptive possessions.

The current rates (and their continuation in real terms for CP5 from CP4) were calculated following an adjustment to the original set of rates after the first year of CP4, when there was a high number of possessions (notably a long blockade outside Immingham). This adjustment triggered a random 30% reduction in the rates (in order to protect NR as they were provided with fixed funding for CP4). The fixed funding in CP4 was originally set following the removal of the Part G provisions for disruption.

The current rates could therefore be considered to be "artificially" low, particularly in light of the considerable increase in the tonnes moved per train and therefore value of freight trains since the beginning of CP4, as demonstrated by the below graph.



The Category 1 compensation rate does, in the round, compensate one short and simple diversion, or where an extra shunt is required. However, it is paid on a 'per train' basis so no matter how many triggers are met the freight operator only receives one payment. This means that where there are multiple diversions or other triggers caused, the compensation falls woefully short.

On long distance midweek night services, in order to maintain a service to customers, trains often have to be diverted multiple times to work around different possessions. This results in perverse outcomes, as there is little incentive for the operator to offer much flexibility in agreeing to network access given that it faces costs in excess of the compensation, and Network Rail are making decisions about network access that do not take into account the real costs to operators.

In order to overcome this we suggest that for Category 1, rather than paying on a per train basis claims can be made 'per trigger'.

The Category 2 rate of £870 (15/16 price level) that compensates for a cancelled service nowhere near covers neither the lost revenue incurred by the operator, nor the contractual penalty incurred on some of our contracts as a result of failing to meet agreed tonnage or train delivery targets. This again results in potentially perverse outcomes.

3) **Notification discount factors**

Notification discount factors do not apply as such for freight operators in that the rates of Category 1-2 compensation are fixed regardless of the notice given up to T-12 weeks in advance of the possession. For late notice possessions and changes made less than 12 weeks out, the enhanced rate of compensation is paid for freight under the Schedule 8 Service Variation and Compensation regime. In principle we are happy with the mechanics of this process although the rates paid do not reflect the costs and losses incurred by freight operators and NR are therefore not making decisions on the basis of holistic costs to the industry, leading to decisions that can be highly disruptive and costly to the operator.

However we do recommend that consideration is given to tidying up the different parts of the possession regime so that all compensation for disruptive compensation is dealt with under Schedule 4, leaving Schedule 8 to be used wholly for unplanned disruption. The current contractual wording in the freight model track access agreement is very hard to follow.

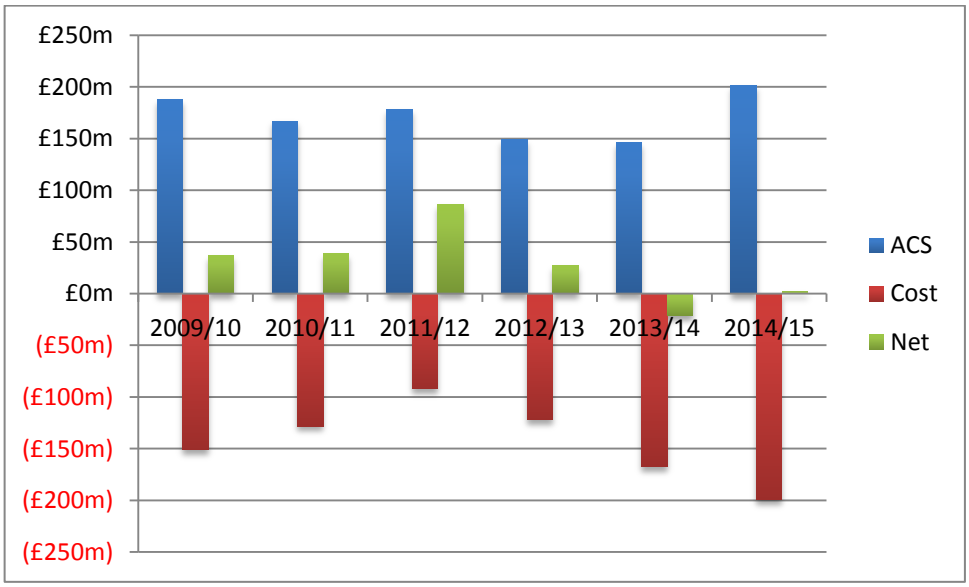
Over the course of CP5 there have been several high profile examples of operational incidents of sustained disruption (e.g: the Hatfield and Harbury landslips and the current disruption on the West Coast Main Line at Lamington) where NR have declared the incidents as possessions, thus transferring the claim to Schedule 4 rates, rather than paying for the disruption through Schedule 8. Although Freightliner, and other freight operators, are greatly impacted by the declaration of Restrictions of Use here appears to be a financial incentive on NR to change the status of an incident to a possession.

We do not believe that it is the intention to use Schedule 4 as a means of compensating unplanned disruption and we suggest that this loophole is closed. In the case of Hatfield, it took over a year to process and claim back the full costs and losses associated with the Category 3 claim. This delay and unnecessary complexity and bureaucracy has significant ramifications for Freight Operators.

3) The Access Charge Supplement (ACS)

The ACS is currently only paid by passenger operator and as a consequence franchised passenger operators are, in the round, fully compensated for their costs and losses through Schedule 4 payments. The payments made by passenger operators are accounted for in their franchise bid and are therefore taken into account in franchise payments with government.

Network Rail tends to over-recovery the access charge supplement compared to Schedule 4 out-payments (see below graph); the surplus presumably covers other areas where there is an over-spend.



Freightliner would support the abolishment of the passenger ACS. This would enable Schedule 4 rates to be set on the same basis for both passenger and freight operators. This would ensure that there is no bias (which may currently exist) without economic justification and that Network Rail could more easily make decisions about engineering access on a clear and holistic industry basis to ensure the best value overall outcome. Schedule 4 payments should be budgeted as part of the cost of undertaking work that causes disruption to the railway.

Given the changing market conditions and competition between operators and their national operations, there is no desire by freight operators to pay an ACS. It would be very difficult to calculate an ACS for freight operators and it would import too much risk to a freight operator's finances. It could also be argued that the ACS system is set up in such a way, that taken by itself, it could encourage Network Rail to defer works as well as take efficient possessions (as the ACS income would be retained by Network Rail).

4) Interaction with regulated outputs

It is important that incentives from Schedule 4 are aligned with any regulated outputs set by the ORR. The current relevant freight regulated output is the Possessions Disruptions Index – Freight (PDI-F).

5) Perverse incentives and unintended consequences

The current structure of the regime, and differing level of charges between passenger and freight, incentivises NR to take shorter possessions, disrupting freight over passenger, even when other solutions may be more efficient, (e.g: over weekends). As explained previously, Schedule 4 nowhere near covers the full costs and losses incurred by freight operators. The regime should incentivise all operators to work with Network Rail to agree Network Access that allow projects and maintenance to be delivered in the most cost effective and efficient manner for the whole industry.

As a minimum we believe that current levels of compensation should be maintained with some consideration given to increasing Category 1 and 2 payments to be more reflective of actual costs and losses. This would incentivise freight operators to be more willing to accept retiming and diverting of trains to fit round possessions.

As explained previously, the currently level of payment doesn't really provide any incentive to do this, bearing in mind the cost of diverting a service could include additional driver hours/resource; additional fuel; additional shunter resource (to assist with running round diverted trains); increased maintenance frequency on assets and losses such as reduced tonnage (if a train loses loading/unloading time in terminal due to retiming). Additionally, NR would be more incentivised to minimise disruption to an individual train if compensation could be claimed for hitting each of these triggers rather than on a per train basis.

Our perception is that there is an expanding delta between the freight and passenger compensation rates. With the rates set as they are NR are unable to take into account the full industry cost when considering the most efficient way of taking access to the network. In other words, the cost of inconveniencing freight over passenger is far lower despite the fact that it is far harder to maintain the confidence of a continuity of service to our customers (whereas passengers are more likely to return once trains are re-instated).

There is a work stream on engineering access that has been led by the Rail Delivery Group through Asset, programme & supply chain management (APSCM), under the Industry Access Programme (IAP) banner, which is looking at how better and more holistic decisions can be made by Network Rail regarding engineering access. The basis of this is that decisions over engineering access are informed by a financial model, taking into account whole industry costs, which has not been the case to date. Pseudo rates have been agreed between Network Rail and freight operators so that the model can be populated with information that is more reflective of the real impact of diversions, retimings and cancellations to freight operators. In reality, as it stands this will not be a real cost to Network Rail, and given this, only time will tell how well the model is adhered to. We suggest that the ORR considers this work stream and the proposed model as part of its CP5 review of Schedule 4.

The rates that have been agreed for use in this work-stream are as follows:

Category	Cancellation	Amendment
Bulk	£6k	£3k
Multi-Customer	£13.5k	£6k

These rates, which vary by commodity (bulk and multi-customer) are considered a better proxy of costs incurred and revenue lost when freight services are cancelled or amended (retimed or diverted).

With the move towards a more devolved network where there will be stronger relationships between NR and the 'lead' passenger operators on each route. Pressure from passenger operators to focus more access on midweek nights could have a disproportionate impact on freight. There is a further risk that devolution will lead to a more dis-jointed access strategy across the network (with gauge-cleared diversionary routes across other NR Routes not necessarily being kept open) and that freight services will be disproportionately affected more by multiple possessions and more restrictions on alternative routes being available.

It is important that the compensation paid to FOCs under Schedule 4 is allocated to the projects and work banks which cause the costs. It is unclear whether this is the case currently, but it appears the budget is managed centrally by the Freight Team. This is particularly important in the case of large Category 3 claims.

At this time of industry change it is important that the Schedule 4 regime is designed in such a way that it ensures that decisions are made on the best overall and economic basis and that the perversities of the existing regime are removed. As such, we would urge the ORR to consider whether the balance of rates between freight and passenger actually delivers the right overall value to the economy of the country, given that the widening disparity in rates will encourage greater disruption to freight services.

6) Other Aspects of the regime

As explained already, in general the Freight Schedule 4 regime works well for Category 1 and 2 claims. However, for larger claims the Category 3 process is far more unwieldy with significant management time taken up on both sides to negotiate and agree the claims. There are no defined timescales for NR to agree or reject a claim from submission, prescribed in the Track Access Contract. This can result in claims sometimes taking over a year to close out.

All claims must now be presented through NR's internal "Claims Panel" which only meets every 4 weeks. Freight Operators are not present at this meeting which means that any questions around the claim have to be fed back to the claimant, delaying the outcome for at least a further month until the next sitting of the panel. Even once a claim is agreed, further delay can ensue whilst NR agree internally over whose budget should pay for the claim.

The consequence of this bureaucracy is that Freight Operators have little confidence in accepting highly disruptive possessions as there is no guarantee that all costs will be recovered or no assurance over when the claim will be paid (this can have a serious cash flow impact on freight operators when the disruption is significant and the claim is large).

One of the issues that can cause debate is the difficulty for an operator to demonstrate the full extent of lost revenue resulting from a possession/period of sustained disruption. For example, a recent claim arose as a result of a track defect on NR infrastructure requiring a train to run 'top and tail' with an additional locomotive over a sustained period. For NR to compensate an operator for this inconvenience the operator must demonstrate that the additional resource was lost from other revenue earning work – this is difficult as freight operators will not plan to let down customers – but will reduce their offering at a planning stage. There are also no transparent or agreed rates agreed for the use or hire of additional resource for this process.

In order to expedite the time taken to process Category 3 claims and reduce management time on all sides, we suggest that an interim new category could be included between Category 2 and 3 that pays an enhanced rate for items such as usage of additional locos, loss of gauge or tonnage for example. It would be far more transparent if loco rates could be agreed in this circumstance, with different rates for use of a loco from an operator's own fleet to a requirement to hire in from another freight operator.

A process map with defined timescales would also speed up the process. There are already maximum timescales for submitting the intention to claim but timescales should also be set from the time in which a claim is acknowledged by NR as having the correct level of detail, until the time when a claim should be agreed (and if so paid) or rejected. A maximum time period of 3-4 months would seem reasonable and allow an operator to negotiate access requests with a greater degree of confidence that compensation will be recovered in a timely manner.

Schedule 8

The Schedule 8 regime provides compensation, or reward, to operators and NR for minimising performance impact on the network and therefore financially incentivises all parties to continually improve their performance on the rail network.

The Schedule 8 provides the industry with the incentive to investigate delay and allocate delay in detail to the correct reason codes. Having such detailed information allows data to be collated that can be used to put improvement plans in place to improve performance. This is a fundamental benefit of the regime and would be potentially lost if the Schedule 8 was abandoned. In our view the administrative burden of managing the Schedule 8 is relatively low; in Freightliner the same teams which manage the Schedule 8 are responsible for improving performance.

The Schedule 8 is particularly important to incentivise freight operators, as unlike passengers, freight customers would like flexibility on departure times (i.e. to depart late when for some reason the train has not yet finished loading). Freight operators constantly have to balance the requirements of their customers with the risk of Schedule 8 payments. The Schedule 8 regime incentivises freight operators to work with customers and other suppliers in the logistics chain (e.g. ports) to encourage right time departures and therefore minimise the likelihood of delay.

The gearing of the Schedule 8 feels very high for freight operators and the regime is not very balanced. Each minute of delay caused costs £47.24 (15-16 price level); sometimes a freight train can be 3 minutes late and it can cause 100 minutes of delay, equating to a payment of £4724, meaning of course that the train becomes commercially unviable for a very small incident (we do also note that a 3 minute delay can cause no minutes delay to other operators – but this is very unpredictable). Conversely in order to receive £4724 a freight train has to be delayed by 227 minutes (not far off 4 hours), which is a very considerable amount of delay indeed.

Freightliner would be very wary of continued gearing of the regime so that the risk associated with running trains becomes too high to bear.

General principles

The RDG Review of Charges work considered principles that were important for the Schedule 8. Freightliner supports this work and the principles that were agreed across the industry:

"Be coherent and aligned at every stage from end-users to funders

- The ideal performance regime should be coherent and aligned at every stage from end-users to funders, across all contractual boundaries. Alignment should include, where possible, the metrics used to measure

performance and performance targets. However, as the performance regime is only a small part of the wider contractual and regulatory framework of the industry, it is recognised that this may not be possible.

Reflect end-user needs

- The regime should take into account the impact of delays or cancellations on an end-user's entire rail journey. For example, their journey may be made up of more than one train service or just part of a train service's complete journey.

Encourage joint industry working to optimise whole-industry performance

- The regime should incentivise parties to work together to improve performance. Joint working may include taking actions to reduce secondary delay and also maximise positive end-user outcomes (e.g. additional stops for one operator to help another recover their service).

  The regime should support business cases to improve performance, particularly, where one party's costs may increase but overall there is a net industry benefit.

Facilitate trade-offs between performance, traffic volumes, and cost

- As traffic on the network increases, performance levels are likely to decrease because disruption will impact more train services. The regime should support the industry in making trade-offs between performance, traffic growth and higher expenditure.

Facilitate the delivery of industry outputs and aims over both the short and long term

- The regime should, at a minimum, not prevent the delivery of the industry's short term and long term outputs and aims. Whilst parts of the regime may be more focused on the long term outputs, e.g. funding enhancement projects, this should not prevent the delivery of day-to-day outputs, e.g. punctuality of existing rail services.

Be effective at all levels of performance

Any incentive properties included within the regime should act on parties regardless of the level of performance.

Not be overly sensitive to relatively small changes in industry outputs

- It is not favourable to have a regime that is highly geared, i.e. results in significant differences in financial payments from small changes in industry outcomes. For example, a small change in train performance should not lead to significant changes to payments between Network Rail and train operators.

Facilitate accurate and efficient attribution of the root causes of delays and cancellations (Feature 8.5)

The regime should enable the industry to develop a robust data-set of the root causes of unplanned disruption, which can help identify, and then tackle, those issues. This data-set should distinguish between the causes of primary and secondary delay so that this information can inform business cases for addressing the causes of unplanned disruption."

Holistic impact

Before any changes to benchmarks or payment rates are proposed it is vital that the ORR considers the impacts of changes holistically. There are 4 fundamental moving parts in the Freight Schedule 8: the Network Rail benchmark, the freight operator benchmark, the Network Rail payment rate and the freight operator payment rate and a change to any of these can considerably impact on the balance of the whole regime. This overall assessment was not done during the PR13 process and the result was a set of unbalanced changes that is estimated to result in a swing of payments from freight operators to Network Rail of £10 million p.a. for exactly the same level of performance.

This £10 million swing should be assessed in the context that all the freight operators collectively

recorded a profit before tax of £27 million in 2012/13[1].

Payment Rates

The calculation of payment rates to passenger operators and freight operators is not currently set on the same basis and we are unaware of any justification for this difference. We propose that the calculation of freight operator payment rates is revised to include the marginal revenue effect.

We are aware that whilst there is a model that calculates the marginal revenue effect on passenger services, there is no equivalent model for freight operators. During the PR13 process the freight operators suggested that the ORR commission some work to enable a freight model, that was the equivalent of the passenger model, and in particular considered the marginal revenue effect of delay on freight operators, but this was not taken forward by the ORR.

The Rail Freight Operators' Association commissioned some work during the latter stages of PR13 to look in particular at the impact of running longer (and more valuable) freight trains on the freight operator payment rate.

The LEK study considered the link between increased train size and Schedule 8 payments (not the marginal revenue impact). This study concluded that freight user charges should change proportionately with average trainload and that train operator costs should change at 80% of the rate of the average trainload. This study by LEK is attached to this response as Appendix 1.

This recommended adjustment was not included in the calculation of CP5 rates, even though passenger Schedule 8 rates were adjusted to take into account the latest modelled data. It is unclear why the 2 sectors were treated inconsistently.

We also refer the ORR to work that was undertaken in September 2013 by Professor David P. Myatt with regard to the pass through impacts of freight user costs. This is attached to this consultation response as Appendix 2.

We urge the ORR to consider this work and update it and consider whether further work is required to ensure that freight operators are treated in a fair and transparent way, and equally to passenger operators.

Passenger payment rates

Freight operators are particularly concerned that passenger payment rates will increase considerably (as they did from CP4 to CP5) to take into account 'delay repay' to passengers and/or other factors such as increased passenger footfall. This would have a direct impact on freight operators as the rates that are paid when causing delays are based on the average (adjusted for route usage) passenger and other operator rates.

If, for example, the passenger rates increased by 25%, and everything else stayed the same, freight operators would have to improve by 5% for every 4% that Network Rail improved - just to keep the payments neutral – and the gearing of the regime would ratchet up again for freight operators.

The outcome of this would be that freight operator costs increase and rail freight becomes less competitive with road freight (there is of course no equivalent payment made by lorries when they cause delays to other road users).

[1] Keeping the Lights on and the Traffic Moving, Rail Delivery Group, 2014

Benchmarks

Freightliner strongly advocates that any proposals for revised benchmarks are reconsidered on the basis of long term incentives and behaviours, rather than looking at a couple of years or one control period in isolation. The risks of taking a short term view are:

a) Individual and discrete recalibration of the NR and operator benchmarks and payment rates could result in sub-optimal operational behaviour. It could be argued that operators or NR would be incentivised to perform below their benchmark, or delay investment decisions, in order to secure a lower benchmark in the next control period.

b) Freight operators would only have the confidence to invest if there was a very short payback within the Control Period, during the later years of the Control Period there would be no incentive to invest at all. We believe this is a fundamental flaw with the basis of the calculation for CP5.

c) New or even existing freight traffic, with low margins, is at risk as the penalty payment of running late could eradicate any margin (or even push the service into loss) resulting in the stopping of the service. For these services the social and economic benefits that rail freight brings to UK plc would be lost;

Ratio between the benchmarks

Previous periodic reviews have not modelled the impact of the ratio between the Network Rail benchmark and the Freight Operator Benchmark. These benchmarks should not be considered in isolation, they must be considered together.

The ratio between the NR benchmark and FOC benchmark was on average 2.1 for CP4, but in CP5 this radically changed to 3:04 (see below table). This resulted in a fundamental shift in the balance of risk in the regime to NR's advantage, on the back of having performed poorly in CP4. We urge that for the PR18 process the regime should be constructed in such a way as to create long term, not short term, incentives and that holistic checks are undertaken to ensure that the overall balance of the regime is not radically altered for no justifiable reason.

	CP4	CP5	% Change
FOC Benchmark	3.05	2.37	(29%)
NR Benchmark	6.39	7.20	11%
Ratio	2.10	3.04	31%

Ratio of Payment rates

In the last periodic review process no assessment was undertaken of the impact of increasing the freight operator payment rates whilst retaining the existing Network Rail payment rates. Just as with the setting of benchmarks it is important to consider the overall impact on costs and risks of the change in both payment rates. Such changes can have a considerable impact on the competitiveness of the rail freight product, versus road – which does not have an equivalent performance regime.

Cancellation threshold

The current base level cancellation payment does not cover the costs or losses incurred by a freight operator when a train is cancelled on an unplanned basis. We contend that the higher payment rate

should be applicable to all services, as this more closely reflects actual costs and losses. This would increase Network Rail's incentive not to cancel services, which is currently small.

It is perverse that a train that is cancelled costs less to NR than a train suffering more than 95 minutes of delay.

Currently the 0.41% threshold applies to all services operated (undistinguished by flow) and is rarely triggered; the below threshold compensation value usually applies (as the poor NR performance on the individual flow has been "absorbed" by the number of trains operated in other traffic flows). Where there is a big incident the higher rate of compensation should be more reflective of the disruption (and the costs and losses) on an individual customer by looking at disruption caused to individual flows.

It is therefore suggested that the threshold principle is applied to the numbers of trains ran periodically at the **individual train service group level**, rather than the periodic summation of all service groups operated by a FOC.

Incident caps

Freightliner supports continuation of the current system of Incident caps, paid for by freight operators via an access charge supplement. We suggest the Incident caps are effective protection for operators, in particular small operators or new entrants and NR is best positioned to provide a cost effective regime that does not unnecessarily add to total industry costs or impose large risks on smaller players in the market.

The current system is a practical way of pooling the risk across freight operators and, in proportion to their size, does not import great risk to them. It is not possible for freight operators to purchase insurance cover against these risks in any other way.

Freightliner suggests that the current system is left unchanged (noting that the rates should be recalculated based on CP5 data).

Annual caps

Freightliner can see no compelling reason to fundamentally change the existing provisions. The Annual cap provides protection to operators, particularly small operators and new entrants.

Similar to the Incident Cap, such a cap is not readily available in the private insurance market, and if it were, would likely be prohibitively expensive, and the exclusions would negate any worth in the policy.

Capacity Charge

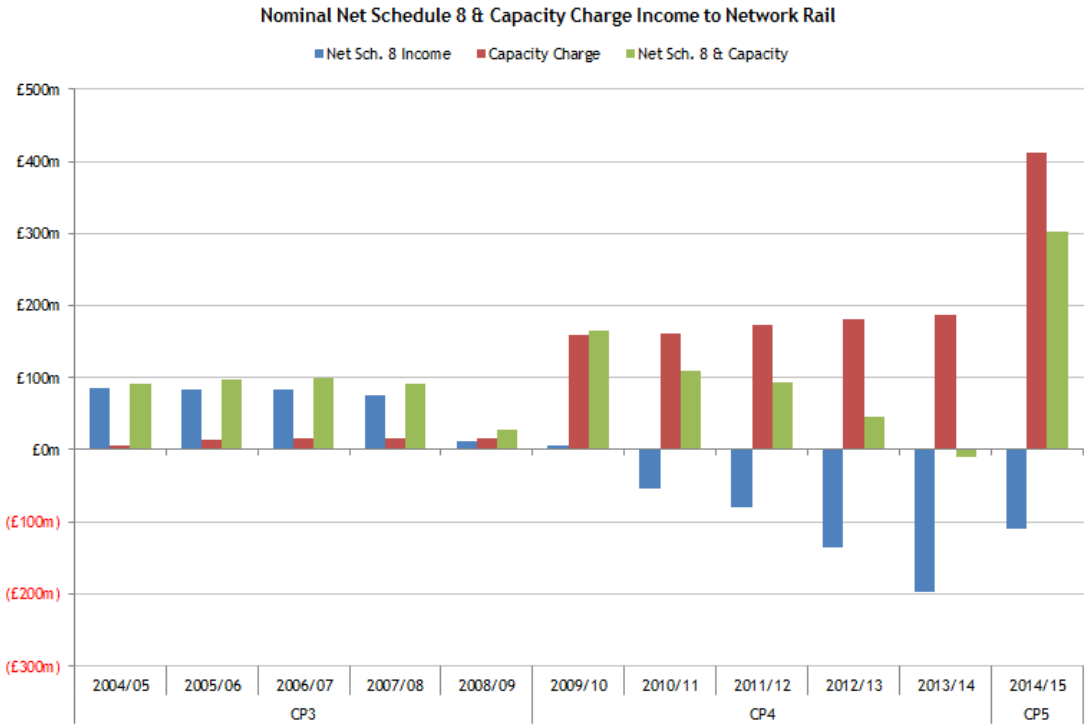
We clearly understand the purpose of the Capacity Charge as a financial risk adjustment to the Schedule 8 Performance Regime to compensate NR for increased Schedule 8 payments from increased activity (train miles) above the baseline of activity used in calculating the benchmarks.

However, the flaws in the calculation of current Capacity Charge calculation are well documented (the recovery of the marginal cost for the next train, for all trains, not just over a prescribed baseline). One of the strong recommendations coming out of the RDG Review of Charges work was to review the Capacity Charge. At the end of the PR13 process the industry had to agree a sub-optimal solution to the Capacity Charge for CP5 because time had run out to review it properly.

We strongly urge the ORR to consider the Schedule 8 Performance Regime and Capacity Charge holistically. We have consistently contended that the current application of the Capacity Charge

over-recovers against this liability and requires a fundamental change for it to deliver against its stated function (see below graph).

The chart below illustrates our view of the over-recovery to NR since CP3 against both passenger and freight operators - cumulatively, £1.1bn since start of CP3.



Source: NR Regulatory Financial Statements

Within the current Schedule 8 the Freight Operator benchmark is already adjusted annually to take into account the total all train network mileage change against the previous year. This is a simple adjustment and we see no reason why a similar adjustment could not also be applied to the Network Rail benchmark annually. This would be straightforward and would avoid the current over recovery that Network Rail makes from the Capacity Charge.

We have previously submitted an explanatory note giving background to the RFOA proposal, please see attached as Appendix 3. We remain of the view that the RFOA proposal is the only technically correct and economically pure version of the capacity charge.

On the Pass-through Impact of Freight User Costs

Opinion

by **Professor David P. Myatt**

September 2013

1. Context and Scope

1.1. **Context.** The Office of Rail Regulation (henceforth the ORR) has published proposed aspects of Network Rail's regulatory environment. One feature is the payment rate which compensates rail freight operators for delays caused by Network Rail.

The ORR's research uses, at least implicitly, the economic analysis of the extent to which freight user costs (that is, costs incurred by freight users as a consequence of the aforementioned delays) are passed back to freight operators. At the moment, the ORR's position is (or at least appears to be) that an appropriate pass-through rate is 50%. That is, for a delay cost incurred by a freight user, and following the adjustment of price, 50% of that cost falls on the user, whereas 50% is carried by the operator.

The relevant source material here is Section 3.7 of "Freight Schedule 8 Performance Regime: Updating the Network Rail Payment Rate and Cancellation Payments." In particular, items 3.7.2 and 3.7.5–3.7.7 are most directly relevant.

1.2. **Scope.** I have been asked to consider the impact on different market participants of freight user costs. Specifically, I have analysed the consequences of a delay-induced cost that is incurred by the user of a particular freight operator. This is within the context of two different (but related) scenarios: (i) firstly, a scenario in which there are no switching opportunities to other transport modes, but it is easy for freight to switch between different rail freight operators; and (ii) secondly, a scenario in which it is also easy for freight users to switch to other transport modes, such as road freight.

Although not specifically requested, I have considered also a third scenario: (iii) a setting in which users find it easy to switch to other transport modes, but where the delay-induced cost is incurred by the users of all rail freight operators.

2. OPINION

2.1. **Summary.** *In all three of the scenarios, described above, the pass-through rate of the delay-induced cost to the relevant operator (or operators) substantially exceeds 50%.*

I have considered the three scenarios described in the scope of this report for the relatively cautious case when the elasticity of supply is equal to the elasticity of demand.

I have assumed that the freight operators act as competitive price-takers and that there are four similarly sized competing operators.

For these cases, the pass-through rates are as follows:

	Cost Type	*Relevant Market Scope*	*Rate*
(i)	Supplier	Rail Freight	87.50%
(ii)	Supplier	Rail and Road Freight	98.75%
(iii)	Sector	Rail and Road Freight	95.00%

For the avoidance of doubt, scenarios (i) and (ii) concern situations in which the relevant delay-induced cost affects only a single operator, whereas scenario (iii) is a situation in which all rail freight operators are affected by the same cost. For scenario (i), buyers are able to switch easily between rail freight operators, but are unable to switch elsewhere, whereas in scenarios (ii) and (iii) freight users are also able to switch to road freight.

For completeness, let me interpret the 87.5% pass-through rate reported in the first line of this table. This says that if a delay affects the users of a single rail freight operator, then 87.5% of the associated delay cost will be passed through (in the form of a lower price) to that operator. The users will carry 12.5% of that delay cost. Furthermore, the price received by other operators will rise by 12.5%. These pass-through rates also measure the profit impact on the relevant operator. That is,

$$\text{Profit Impact} = \text{Pass-Through Rate} \times \text{Per-Unit Delay Cost} \times \text{Operator's Output}.$$

Note again that these calculations use a conservative specification in which the elasticity of supply for each operator is equal to the elasticity of demand. The pass-through rates rise if supply is less elastic. My calculations below report pass-through rates for a range of elasticities. A key feature is that those rates all significantly exceed 50%.

In Section 2.2 I mention briefly some issues that arise in oligopolistic markets, before returning in Section 2.3 to discuss the key factors that influence pass-through rates in a competitive (price-taking) market. Sections 2.4 and 2.5 are more technical: they report explicit formulae for those rates. Section 2.6 provides a more detailed table for pass-through rate effects for various scenarios of interest; this extends the table reported above.

2.2. **Oligopoly.** The calculations reported above assume that rail freight operators act as price takers. That is, this is a competitive market in the sense that each operator does not expect to exert a significant influence over the market price.

A further specification to consider is one in which rail freight operators recognise that they exert some market power. An appropriate model here is one in which operators are thought of as "Cournot" oligopolists. This is when they compete by non-cooperatively choosing their outputs, but where they recognise the price implications of output changes.

Although the details are not reported here (they are available upon request) the relevant pass-through rates are also large (typically larger) in the oligopolistic case. For example, in the simplest case when freight is supplied by a monopolist the appropriate compensation rate for delay costs is 100%. Furthermore, if a single operator in an oligopoly is hit by a delay cost then the operator's loss typically exceeds 100% of the direct delay cost. This is because of the strategic disadvantage that an operator suffers; the consequent output expansion by competitors raises the impact on the cost-hit operator to above 100%. Finally, in an oligopoly environment the total impact (on all market participants; that is, all users and all operators) of a delay is greater than direct cost of that delay. That is,

$$\text{Overall Impact of a Delay} > \text{Per-Unit Delay Cost} \times \text{Affected Operators' Output}.$$

The right-hand side of this inequality is the direct cost of a delay. In a competitive scenario (when operators are price-takers) this is also the total impact. However, in an oligopoly the delay cost induces an overall contraction of industry output. In an oligopoly the marginal units of output involve a price (representing the marginal benefit of output) that strictly exceeds the marginal cost of production. Hence, the induced contraction of industry output is costly. In contrast, when suppliers are "perfectly competitive" (that is, they are price-takers) price is equal to marginal cost and so any industry contraction (following the presence of delays) involves a negligible additional cost above the direct impact.

2.3. **Pass-Through in Competitive Markets.** The determination of pass-through rates is closely related to the economic incidence of taxes and other costs. The economic incidence of a cost is the extent to which a market participant is affected by it; this differs from (and is independent of) the identity of the participant who directly bears the cost.

In a perfectly competitive market (in which no one player substantially influences prices) the imposition of a cost on all buyers (on the demand side) has the direct effect of harming those buyers. However, the consequent reduction in demand pushes down the equilibrium price. This price reduction partially offsets the cost carried by buyers; hence part of the impact is passed through to the suppliers in the form of a lower price.

In a classic "textbook" environment the relative impact on the two sides of the market is determined by the relative size of the elasticities of supply and demand. For example, if those elasticities are equal then the overall impact of the cost is balanced across the two sides of the market: 50% is borne by the buyers, and 50% by the sellers. Precisely the same analysis applies when a cost is imposed on all suppliers in a market.

Crucially, however, this logic applies only if the cost is imposed on all buyers, or upon all suppliers, in a market. If the cost is borne by only some suppliers (or, equivalently, by buyers when they purchase from those suppliers) then the incidence effects change in important ways: the fraction of the cost borne by the affected suppliers grows substantially; the impact on buyers is lessened substantially; and suppliers who are not directly affected by the relevant cost enjoy a benefit (rather than suffer a harm) from the cost change.

For the purposes of discussion, suppose that the users of a single rail freight operator are affected by a delay cost. There are three steps that determine the final impact:

(1) In the very short run, before the freight user is able to adjust behaviour, any delay cost affecting freight users will be directly paid by those users.
(2) In the medium run, the relevant operator must set a price that is lower than the price of others' products. This price reduction exactly equals the relevant delay cost, and so at this point 100% of the cost is passed to the operator.
(3) With upward sloping supply, the affected operator contracts output. That output contraction forces prices upward. The price rises push part of the cost increase back onto users; this also raises the profits enjoyed by other competing operators.

The third effect depends upon the size of the operator's output change and the extent to which that influences the market equilibrium. Importantly, this depends upon the market share of the affected operator. If an operator represents a small fraction of the relevant market then only a small fraction of the cost shock is pushed back into the market system. Hence a relatively small operator carries a large percentage of any operator-specific cost.

Sections 2.4 and 2.5 that follow are more technical in nature: they report the mathematical formulae for pass-through effects. Numerical illustrations are provided in Section 2.6.

2.4. **Basic Formula for Cost-Shock Pass-Through Rates.** The fraction of the cost impact which is avoided (that is, passed on to others) by a particular operator (or sector of operators who are hit with the same sector-specific cost shock) is proportional to that operator's market share (or the sector's share, for a sector-specific shock).

For example, if all operators are hit by the same shock, and if the elasticities of supply and demand are the same, then the pass through is 50%. If, however, an operator affected by a cost shock represents only 20% of the relevant market, then only 10% of the cost is passed on to others, and so the affected operator carries 90% of the effect. In general, the pass-through rate (to an operator) of the cost is in this setting is mathematically

$$(\star) \qquad \text{Pass-Through Rate} = 100\% - \frac{\text{Market Share}}{2}.$$

As an illustration, consider scenario (i): a single rail freight operator is hit by an operator-specific cost shock (perhaps paid by the corresponding user), and buyers may freely switch to other rail freight operators, but not to roads. Furthermore, suppose that there are four operators. The market share of the affected operator is 25%, and so the formula $(\star)$ gives:

$$\text{Pass-Through Rate} = 100\% - \frac{25\%}{2} = 87.5\%.$$

Other operators gain (and their users lose) from a price rise equal to 12.5% of the cost.

In scenario (iii) all operators are hit with the same delay cost, and users are able to switch to other transport modes. If rail freight represents 10% of the overall freight market, then

$$\text{Pass-Through Rate} = 100\% - \frac{10\%}{2} = 95\%.$$

An associated price rise (5% of the cost) helps the non-rail operators and harms users.

2.5. **The Effect of Elasticities.** The formula ($\star$) applies if the elasticities of supply and demand are equal. Any reduction in the elasticity of supply increases the pass-through rate felt by the relevant operator. In the rail freight environment, it might be expected that supply is relatively inelastic (owing to capacity constraints) compared to both the elasticity of demand and the elasticity of other (e.g. road-based) freight operators. If this is so, then the pass-through rate experienced by rail operators would be higher.

Specifically, if all operators share the same elasticity of supply, but that elasticity differs from the elasticity of demand, then the pass-through-rate formula becomes

$$(\dagger) \qquad \text{Pass-Through Rate} = 100\% - \frac{\text{Market Share} \times \text{Supply Elasticity}}{\text{Demand Elasticity} + \text{Supply Elasticity}}.$$

This rate becomes greater as supply becomes more inelastic (the elasticity of supply is lower) which corresponds to a case where outputs react only sluggishly to price changes. It seems reasonable to think that this may apply in rail freight, which suggest that the pass-through rates are larger than those reported in the previous scenario-based examples.

Nevertheless, it is possible to compute a "worst case" specification for the lowest possible pass-through rate. Even if supply is very elastic the pass-through rate must satisfy

$$\text{Pass-Through Rate} \geq 100\% - \text{Market Share}.$$

For scenario (i) the pass-through rate exceeds 75%, and in scenario (iii) it exceeds 90%.

I have yet to discuss the second scenario. In scenario (ii), an operator-specific shock hits one of four rail freight operators within a 10% slice of the overall freight market. The relevant market share for an individual rail operator is 2.5%, and so the pass-through rate must (according to the formula above) exceed 97.5%. Moreover, if supply is less elastic than demand (as it might be expected to be) then the pass-through rate exceeds 98.25%.

2.6. **Numerical Pass-Through Rates.** It is helpful to compute numerical pass-through rates for different cases. The three scenarios that form the scope of this opinion are:

(i) A single operator is hit with a cost shock. The relevant market is for rail freight. I have been asked to consider the case with four similarly sized operators.
(i) A single operator is hit with a cost shock. The relevant market is for freight generally, where rail represents 10% of this market. There are four similar rail operators.

(ii) Here all four rail freight operators are hit with the same shock. However, they jointly form, as in scenario (ii), 10% of the relevant (larger) freight market.

I also consider here the following four configurations for the elasticity of supply:

- Supply is completely inelastic (symbolically, $\varepsilon_S = 0$).
- Demand is three times as elastic as supply ($\varepsilon_D = 3\varepsilon_S$).
- Supply and demand are equally elastic ($\varepsilon_D = \varepsilon_S$).
- Supply is completely elastic ($\varepsilon_S = \infty$).

Here "ε_S" and "ε_D" indicate the elasticities of supply and demand, respectively.

For the three scenarios and four elasticity configurations, the pass-through rates are these.

	Cost Type	*Relevant Market Scope*	$\varepsilon_S = 0$	$\varepsilon_D = 3\varepsilon_S$	$\varepsilon_D = \varepsilon_S$	$\varepsilon_S = \infty$
(i)	Supplier	Rail Freight	100.000%	93.750%	87.500%	75.000%
(ii)	Supplier	Rail and Road Freight	100.000%	99.375%	98.750%	97.500%
(iii)	Sector	Rail and Road Freight	100.000%	97.500%	95.000%	90.000%

The clear message emerging from all of these numerical exercises is that pass-through rates are high for all of the elasticity configurations documented here.

3. Brief Concluding Remarks

I conclude with some brief additional comments.

Firstly, the analysis here considers competitive markets. A move to consider oligopolistic markets can raise, rather than lower, the pass-through rates that apply to operators.

Secondly, in the settings where the relevant market comprises both road and rail freight, the elasticities of supply may differ. A reasonable guess is that the elasticity of rail freight operators is relatively low; this again serves to increase the pass-through rates.

Thirdly, in an oligopoly setting the total impact of a delay cost actually exceeds the value obtained by multiplying the per-unit delay cost by the volume of affected freight.

DPM. September 3, 2013.

4. Mathematical Appendix

This appendix is designed exclusively for a technical reader. It documents the formal mathematical formulae that lie behind the analysis used in this opinion.

4.1. **Cost Shocks in a Perfectly Competitive Market.**

Consider a market in which all suppliers are price takers. I write p for the market equilibrium price. The demand function is $D(p)$. Supply is drawn from N suppliers, where supplier $i \in \{1, \ldots, n\}$ is potentially affected by a cost shock c_i. The supply function of i is $S_i(p, c_i)$.

My objective here is to investigate the impact of a change in the cost shock c_j on buyers and on the profits of both supplier j and other competing suppliers $i \neq j$. The cost shock c_i is a constant additional marginal cost added to the production cost of supplier i. This is equivalent to a reduction in the price offered for its product. Mathematically,

$$\frac{\partial S_i(p, c_i)}{\partial c_i} = -\frac{\partial S_i(p, c_i)}{\partial p}.$$

An equilibrium is obtained by equating supply to demand, so that $D(p) = \sum_{i=1}^{N} S_i(p, c_i)$. To investigate the effect of a change in the cost parameter c_j on the market price, this equilibrium condition can be totally differentiated with respect to c_j. This yields:

$$\begin{aligned}
\frac{\partial D(p)}{\partial p}\frac{dp}{dc_j} = \frac{\partial S_j(p, c_j)}{\partial c_j} + \frac{dp}{dc_j}\sum\nolimits_{i=1}^{n} \frac{\partial S_i(p, c_i)}{\partial p} \\
= -\frac{\partial S_j(p, c_j)}{\partial p} + \frac{dp}{dc_j}\sum\nolimits_{i=1}^{n} \frac{\partial S_i(p, c_i)}{\partial p} \\
\Rightarrow \quad \frac{dp}{dc_j} = \frac{\frac{\partial S_j(p, c_j)}{\partial p}}{-\frac{\partial D(p)}{\partial p} + \sum_{i=1}^{n} \frac{\partial S_i(p, c_i)}{\partial p}}.
\end{aligned}$$

To move further it is helpful to work in terms of elasticities. I write ε_D for the elasticity of demand and ε_i for the elasticity of supply. Mathematically,

$$\begin{aligned}
\varepsilon_D = -\frac{\partial D(p)}{\partial p}\frac{p}{D(p)} \quad \text{and} \quad \varepsilon_i = \frac{\partial S_i(p, c_i)}{\partial p}\frac{p}{S_i(p, c_i)} \\
\Rightarrow \quad \frac{\partial D(p)}{\partial p} = -\frac{\varepsilon_D D(p)}{p} \quad \text{and} \quad \frac{\partial S_i(p, c_i)}{\partial p} = \frac{\varepsilon_i S_i(p, c_i)}{p}.
\end{aligned}$$

These expressions can be substituted into the the solution for dp/dc_j, so that

$$\frac{dp}{dc_j} = \frac{\varepsilon_j S_j(p, c_i)}{\varepsilon_D D(p) + \sum_{i=1}^{n} \varepsilon_i S_i(p, c_i)} = \frac{\varepsilon_j [S_j(p, c_j)/D(p)]}{\varepsilon_D + \sum_{i=1}^{n} \varepsilon_i [S_i(p, c_i)/D(p)]}.$$

In equilibrium, demand $D(p)$ is equal to the total supply $\sum_{i=1}^{n} S_i(p, c_i)$, and so $S_j(p, c_j)/D(p)$ is the market share of supplier j. Writing α_i for the market share of each supplier i,

$$\frac{dp}{dc_j} = \frac{\varepsilon_j \alpha_j}{\varepsilon_D + \sum_{i=1}^{n} \varepsilon_i \alpha_i}.$$

In fact, the summation in the denominator is equal the overall elasticity of supply in this market. That is, $\varepsilon_S == \sum_{i=1}^{n} \alpha_i \varepsilon_i$. Hence the effect of an increase in the cost shock c_j associated with supplier j on the overall price in the market is

$$\frac{dp}{dc_j} = \frac{\varepsilon_j \alpha_j}{\varepsilon_D + \varepsilon_S}.$$

This represents the degree to which a cost shock affecting j is deflected into the market price. To obtain the profit impact on supplier j, differentiating j's profit readily yields

$$\frac{\partial[\textbf{Profit of } j]}{\partial c_j} = S_j(p, c_j)\left(1 - \frac{dp}{dc_j}\right) = S_j(p, c_j)\left(1 - \frac{\varepsilon_j \alpha_j}{\varepsilon_D + \varepsilon_S}\right).$$

Summarising, and writing in terms of percentages,

$$\textbf{Pass through percentage} = 100\% - \frac{\varepsilon_j \times (\textbf{Market Share of } j)}{\varepsilon_D + \varepsilon_S}.$$

This underpins formula (†) used in my main opinion.

4.2. **Buyer-Paid Costs.** The environment of relevance to this opinion is one in which a buyer incurs an extra cost when purchasing from a particular supplier. This occurs when a freight user suffers a delay cost of c_i when purchasing from operator i.

Given that products are easily substitutable, the direct effect of a shock c_i is to shift downwards the price receive by supplier i by the amount c_i. This is because supplier i must offer a price exactly c_i below the price of products offered by other competitors in order to sell. This means that p can be interpreted as the price for a perfect product, whereas $p_i = p - c_i$ is the price paid to a supplier affected by a delay cost c_i. Hence, the cost carried directly by a buyer is equivalent to a cost paid instead by the supplier. This is in accordance with the general principle that the ultimate incidence of a cost is independent of the identity of the trading partner who directly pays that cost.

5. Biographical Note

David P. Myatt is Professor of Economics at London Business School (LBS). Amongst other positions he is also: an Associate Member of Nuffield College, University of Oxford; an Associate Fellow of the Department of Economics, University of Warwick; and a Research Fellow of the Centre for Economic Policy Research. He was educated at the London School of Economics (LSE), at the Massachusetts Institute of Technology (MIT), and at the University of Oxford. Prior to moving to LBS he held various academic positions within the University of Oxford, including Fellowships of St Catherine's College and Nuffield College.

David's academic research often uses the tools of game theory (the scientific analysis of strategic decision-making) applied to various settings in both economics and political science. In economics his research includes the study of advertising, marketing, and product design strategies; in political science, his work includes theories of leadership, strategic voting, and executive performance. His academic research papers have been published in the very top academic journals in both economics (including the American Economic Review and the Review of Economic Studies) and political science (including the American Political Science Review and the American Journal of Political Science). In an editorial capacity, he previously served the Royal Economic Society as Editor of the Economic Journal. He is currently Co-Editor of the Quarterly Journal of Political Science and Associate Editor of the Journal of Economic Theory, and holds other positions on editorial boards and within leading scientific associations.

At LBS, David's teaching ranges across the full portfolio of programmes, including the MBA, EMBA, MiM, and PhD degrees. Within the core Managerial Economics course, he teaches tools for output choice and pricing in markets where businesses seek to exploit their market power; within the elective Thinking Strategically he uses the tools of game theory to analyse strategic decision-making; and within the Business, Government, and Society course he explores the interaction of businesses with wider societal stakeholders.

David also has experience in both open and custom executive education programmes; he has served private clients in this capacity, and he is a long-standing contributor to the sixty-year-old Oxford University Business Economics Programme. In his consulting activities, David has advised clients on competition policy, auction strategy, business organisation, and various aspects of the regulatory environment.

Proposal for the inclusion of the freight capacity charge into the Schedule 8 performance regime

BACKGROUND

- Network Rail (NR) state the purpose of the capacity charge as:

The capacity charge allows Network Rail to recover additional costs beyond the Schedule 8 baseline associated with the increased difficulty of recovering from incidents of lateness as the network becomes more crowded. In so doing, the charge helps neutralise the increased Schedule 8 risk to Network Rail of accommodating additional traffic. A secondary objective of the charge is to provide appropriate incentives and price signals to train operators and funders to make efficient use of network capacity.

- The current capacity charge fails NR's stated aim with respect to freight operators (FOCs) because:

a) It over recovers the marginal cost of additional traffic by way of applying the marginal cost to all traffic. We recognise the consistent principle of a marginal rate being applied to all traffic, in-line with the variable usage charge. However, this does not take into account that unlike variable usage charges the capacity charge should only recover additional costs above the baseline. The result is a substantial over recovery: NR's accounts show in 2010/11 c. £180M capacity charge receipts compared to a total Schedule 8 payment of £80M. We can only conclude the charge is massively over stated;

b) By maintaining consistency with the VUC charging principle the incentive effect on FOCs (TOCs capacity charge is "recovered" by way of reduction to their fixed charge) is very marginal because the charge is levied on all miles run even if they reduce; and,

c) The capacity charge, in its current structure as established in 2001, is inappropriate for freight in light of the UK's transposition of the 2001 EU Directive (2001/14/EC) into the Railways Infrastructure (Access & Management) Regulations 2005 which requires an affordability test, in effect it acts as a mark-up.

- The Schedule 8 regime is already highly effective at incentivising improved day to day performance. There has been nearly a 40% improvement from both NR and the FOCs, since 2003/04, as a direct result of investments made by the FOCs, and NR, to improve reliability on the back of the penalty or reward available under the Schedule 8 regime. This has been achieved in parallel to a considerable increase in trains on the network over the same period.

THE PROPOSAL

- The adjustment can be expressed simply as an annual factor equal to the % movement in total FOC & TOC miles run. The TOC miles used should correspond to the TOC service codes included in the FOC Schedule 8 payment rate calculation.

$$\sum\left(NR\ Regulatory\ Benchmark^{t+1} \times \left(Total\ Network\ Miles^{t} \div Total\ Network\ Miles^{t-1}\right)\right)$$

t = year just ended

- The FOC benchmark is already adjusted by all train mile activity annually and it is suggested this arrangement remains. The inclusion of an activity adjustment to the NR benchmark would balance out the Schedule 8 regime. It is proposed not to make any adjustment to the payment or bonus rates because the current deficiency is activity based not cost based.

- This proposal could be implemented for freight without affecting the passenger capacity charge. There are fundamental differences in the circumstances faced by freight and passenger operators that supports this:

a) FOCs do not pay the fixed charge therefore there is no offset of the capacity charge;

b) The existing charge is not compliant with EU Directive 2001/14/EC or the Railways Infrastructure (Access and Management) Regulations 2005 in respect of freight but remains compliant for passenger operators under the current structure of franchising;

c) The incentives are real for FOCs as they do not have a contracted train specification from HM Government (HMG) but run services to meet customer demand; and,

d) The freight regime accounts for delay at all Recording Points across the network rather than measuring lateness at a fewer number of specific Monitoring Points under the passenger regime.

- In conclusion, the proposal delivers a more effective[1] and accurate cost recovery to NR for changes in activity than the current capacity charge and creates a stronger incentive on FOCs to make efficient use of the network. By incorporating an activity adjustment into the Schedule 8 regime there is a greater incentive on both NR and the FOCs to improve performance, the issue of the capacity charge's legal validity for freight is removed and the NR regulated benchmark gets recognition of changes in activity more frequently than once every 5 years. It is a relatively straight forward change to implement, albeit it is understood that the Office of Rail Regulation (ORR) will need to approve it.

[1] Still time lagged but only by 1 year versus the current 5 years