Network Rail monitor
Q1 2008 - 09
1 April - 21 June 08

OFFICE OF RAIL REGULATION

Network Rail monitor – Executive brief

Safety risk at the lowest level since November 2006

- The level of overall train accident risk on the network continues to fall and is almost down to the lowest recorded level of 46.2 in November 2006.

Train punctuality is at the highest level since March 1998

- The public performance measure (PPM) moving annual average (MAA) at the end of Q1 was 90.1%, above the industry target of 90.0% and 1.9% higher than at the end of Q1 last year. This is the highest level since the measure was introduced in its current form (March 1998).
- There were further reductions in Network Rail delay minutes to passenger trains. The MAA at the end of Q1 was 12% lower than at the same point last year.
- Although performance overall at network level continues to be strong there are a number of local problems detailed on the following page.

Improving asset reliability

- Infrastructure reliability continues to improve. Assets are failing less often and overall infrastructure delay is down. However, the rate of improvement varies considerably on different parts of the network. Although there are fewer incidents, there are signs that Network Rail's interventions are not always as effective as they could be – causing delays to increase in some cases.
- Most measures of track condition are continuing to improve steadily, with fewer track faults and condition-related speed restrictions and significantly less delay as a result compared to Q1 last year. Network Rail is continuing to address problems caused by rolling contact fatigue.
- Overall reliability of the network's electrification assets has improved on both the AC and DC systems. However, the number of major incidents causing significant delay actually increased.
- Trends in the performance of the signalling and train control assets are less positive than those for track condition. Although the number of incidents in Q1 was also down from Q1 last year, the delay they caused increased in several key areas.

Challenging renewal and enhancement budget for Network Rail

- Network Rail's budget for 2008-09 includes a challenging increase in renewals and enhancements spend over last year. Given that spend is below budget, we have doubts about whether the company's full-year forecast spend is realistic.

Enforcement and scrutiny

We are monitoring the following issues particularly closely. The first two are subject to enforcement action; the remainder are under special scrutiny.

West Coast mainline project delivery

- Following our acceptance of Network Rail's delivery plan submitted on 31 March 2008 we have monitored the progress of the Network Rail project team in delivering the twenty-one major milestones that underpin the introduction of the new timetable in December 2008.
- We reviewed Network Rail's plan with the independent reporter, and concluded that the plan is achievable. At the time of publication, Network Rail had delivered a total of eight major milestones, with a further four to be achieved by 8 September.
- We continue to press Network Rail for its plans to improve and maintain the reliability of the existing infrastructure to support and sustain the new timetable.

Network Rail's planning of engineering projects and possessions overruns

- In response to our enforcement order to address the areas of concern that we identified, Network Rail produced and issued its plan on 27 June following consultation with its customers and funders.
- We have reviewed Network Rail's plans with the independent reporter and have checked that progress in key areas is in accordance with the plan. As a result, we have accepted the plan as being compliant with the order.

Western route performance improving

- First Great Western (FGW) performance has improved significantly. PPM for Q1 was 89.8% and the MAA figure of 85.3% at the end of Q1 was ahead of the trajectory in the agreed Joint performance improvement plan (JPIP). Network Rail delay minutes to FGW for Q1 were 26% down on Q1 last year.
- Although we continue to monitor results on Western route closely, ORR is satisfied that all parties are working together effectively to improve performance.

West Coast main line performance

- Virgin Trains has expressed concern over current poor performance, in part due to failures of new equipment such as axle counter and HPSS points.
- Quite apart from the impact this is having on rail users here and now, this poses a threat to the planned December upgrade. The more intensive level of service proposed requires increases in infrastructure, rolling stock and manpower to sustain high levels of performance and reliability.
- We have held intensive discussions with Network Rail and Virgin Trains to understand what Network Rail is doing to identify and resolve the underlying problems swiftly. We have emphasised the urgency of doing this. Network Rail has submitted a plan showing how it intends to return performance to acceptable levels over the next three months. We are monitoring Network Rail's progress on a weekly basis.
- Work is also in hand preparing alternative timetable plans that would step up services more gradually from December onwards, if this is seen as a more sensible option. Properly handled this could be a pragmatic and acceptable approach to reduce the risk to performance, while giving passengers the benefit of improved timetables as soon as this can be done reliably.

Contents

1. Great Britain

Summary data (Great Britain) Q1 2008-09 (1 April - 21 June 2008)

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
1 - Safety risk	Actual	49.2	50.4	48.1	46.3	n/av	n/app
RSSB train accident precursor measure (composite)	Previous year's actual	48.1	47.1	46.8	48.9	49.2	n/app
2 - Passenger train performance	Actual at end of quarter	88.2	88.7	89.3	89.9	90.1	90.6
Public performance measure (PPM) (MAA) (%)	Industry target	88.1	88.3	88.9	89.5	90.0	90.0
3 - Network Rail delay minutes	Year to date actual	2.1	4.3	7.4	9.5	1.9	8.8
Number of delay minutes (millions) attributed to Network Rail	ORR target	2.1	4.4	7.6	9.8	2.0	9.1
4 (a) – Delays to passenger trains	Normalised for the quarter	1.66	1.74	1.92	1.63	1.50	n/av
Network Rail delay minutes to Train operating companies per 100 train km	ORR derived target	1.70	1.85	1.94	1.70	1.57	*1.65*
4 (b) – Delays to freight trains	Normalised for the quarter	4.01	4.75	4.25	4.23	3.89	n/av
Network Rail delay minutes to Freight operating companies per 100 train km	Network Rail target	*3.52*	*3.93*	*4.13*	*3.76*	*3.94*	*3.95*
5 - Asset failures	Actual 4-weekly average	4,370	4,150	3,801	3,904	4,066	n/av
Number of infrastructure incidents	Previous year's actual	4,410	4,654	4,327	4,576	4,370	*45,668*
6 - Asset stewardship index (ASI)	Actual	0.70	0.69	0.66	0.63	0.62	n/av
Composite of seven asset condition measures	Network Rail target	*0.72*	*0.71*	*0.71*	*0.70*	*0.68*	*0.61*
7 - Activity volumes (track renewals only)	Actual cumulative	104.9	99.1	97.6	97.1	94.9	99.4
% Activity compared with plan	Network Rail target	*100*	*100*	*100*	*100*	*100*	*100*
8 (a) - Expenditure (OMR)	Year to date actual	1,084	2,240	3,872	5,187	1,163	5,937
Operating, maintaining and renewing the network	Year to date budget	*1,171*	*2,423*	*4,161*	*5,611*	*1,255*	*5,895*
(£ millions)	Variance %	-7.4	-7.6	-6.9	-7.6	-7.3	
8 (b) - Expenditure (enhancements)	Year to date actual	127	261	481	743	249	1,356
Enhancing the network	Year to date budget	*154*	*341*	*555*	*749*	*276*	*1,278*
(£ millions)	Variance %	-17.5	-23.5	-13.3	-0.8	-9.8	
9 - Financing	Actual	69.7	68.9	68.6	69.4	66.3	69.3
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	*70.5*	*70.0*	*70.2*	*72.4*	*66.2*	*68.4*
10 - Financial efficiency index (FEI)	Year to date actual	80.0	80.1	78.9	78.1	79.8	76.7
Adjusted cost of operations, maintenance and track renewals	Network Rail target	*80.5*	*79.6*	*78.5*	*77.9*	*78.6*	*75.3*

See data note on page 23. Network Rail's own internal targets are in *italics*.
See pages 24-25 for KPI definitions and development.

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast
							Year end target
1 - Safety risk	Actual	**49.2**	**50.4**	**48.1**	**46.3**	**n/av**	**n/app**
RSSB train accident precursor measure (composite)	Previous year's actual	**48.1**	**47.1**	**46.8**	**48.9**	**49.2**	**n/app**

1 – Safety Risk

There was a reduction in the level of overall train accident risk on the network from Q3 to Q4 2007-08, as measured by the RSSB's train accident risk measure, the precursor indicator model (PIM). The level of overall train accident risk on the network continues to fall and is almost down to the lowest recorded level of 46.2 in November 2006.

This reduction was evident for each of the elements of the PIM, with the exception of signals passed at danger, where there was no change.

Within infrastructure failures there was an increase in the risk from environmental events (such as landslips associated with heavy rain), but a decrease in the risk from damage to structures (such as bridges and overhead line equipment) and track faults (such as broken rails and poor track geometry).

Within objects on the line there was an increase in the risk from road vehicles on the line and a decrease in risk from objects blown onto the line (associated with strong winds in Q3).

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast
							Year end target
2 - Passenger train performance	Actual at end of quarter	**88.2**	**88.7**	**89.3**	**89.9**	**90.1**	**90.6**
Public performance measure (PPM) (MAA) (%)	Industry target	**88.1**	**88.3**	**88.9**	**89.5**	**90.0**	**90.0**

2 – Passenger train performance

(Franchised passenger operators only)

The public performance measure (PPM) moving annual average (MAA) at the end of Q1 was 90.1%, above the industry target of 90.0% and 1.9% higher than at the end of Q1 last year. This is the highest level since the measure was introduced in its current form (March 1998).

The improvement was driven by reductions in train operators' delay minutes (TOC on self) of 14.7% and a reduction in Network Rail delay minutes of 10.2%.

West Coast main line

The PPM for Virgin Trains was poor - just 82.3% in Q1, largely due to major incidents affecting the infrastructure. Specific problems included cable failures in the Milton Keynes area triggered by engineering work, and failure of recently-installed points and axle counters at many locations on the southern part of the route. We have held intensive discussions with Network Rail and Virgin Trains to understand what Network Rail is doing to identify and resolve the underlying problems speedily, and to emphasise the urgency of doing this.

These problems are not only causing huge frustration and delay for West Coast passengers now, but are jeopardising Network Rail's ability to support introduction of the full upgraded Virgin service in December. Network Rail has submitted a plan to return performance to acceptable levels over the next three months, and will make a decision on the December timetable by mid September. We are monitoring progress closely and expect Network Rail to provide robust justification for its decision on the timetable.

East Coast main line

National Express East Coast Q1 PPM was 86.4%, the second lowest for all operators. However, it was an improvement; 3.3% higher than in the previous quarter (Q4 2007-08) and 3.4% higher than in Q1 last year. There were fewer major infrastructure failures and no repetition of the flooding in Q1 last year. ORR is continuing to press National Express East Coast and Network Rail to agree and deliver a joint performance improvement plan (JPIP) for 2008-09.

Western route

First Great Western performance, and Network Rail's delay, improved significantly, with PPM of 89.8% in Q1. This is much closer to the performance of other operators than has been the case since the combined franchise started. It is a promising start to the year and suggests that the JPIP target of 86% PPM MAA by the end of the year is achievable.

Sussex route

Network Rail had a relatively difficult year in 2007-08 on the Sussex route due to a succession of major incidents. Southern, the operator most affected, formally referred the matter to ORR in February 2008. Following a joint meeting with Network Rail and Southern, we agreed with the operator to keep matters closely under review in the first three periods (Q1) of 2008-09. PPM for Q1 in isolation was encouraging – it improved to 92.6% and the PPM MAA increased to 90.1% from 89.9% at the end of the previous quarter (Q4 2007-08). This is ahead of the JPIP trajectory. Network Rail delay was down 13% compared to Q1 last year.

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
3 - Network Rail delay minutes	Year to date actual	**2.1**	**4.3**	**7.4**	**9.5**	**1.9**	**8.8**
Number of delay minutes (millions) attributed to Network Rail	ORR target	**2.1**	**4.4**	**7.6**	**9.8**	**2.0**	**9.1**
4 (a) – Delays to passenger trains	Normalised for the quarter	**1.66**	**1.74**	**1.92**	**1.63**	**1.50**	**n/av**
Network Rail delay minutes to Train operating companies per 100 train km	ORR derived target	**1.70**	**1.85**	**1.94**	**1.70**	**1.57**	**1.65**
4 (b) – Delays to freight trains	Normalised for the quarter	**4.01**	**4.75**	**4.25**	**4.23**	**3.89**	**n/av**
Network Rail delay minutes to Freight operating companies per 100 train km	Network Rail target	***3.52***	***3.93***	***4.13***	***3.76***	***3.94***	***3.95***

3 – Network Rail delay minutes

(all train operators)

Delay in Q1 was 1.92 million minutes. Care should be taken in drawing conclusions from year on year comparisons as performance in Q1 (and beginning of Q2) 2007-08 was severely affected by some of the worst flooding seen in a decade in many parts of the country. This, in part, explains why Network Rail delay to all services in Q1 was 4.7% lower than in Q1 last year. More significantly, delay was 0.6% lower than the business plan target of 1.94 million minutes. The MAA at the end of Q1 was 12% lower than at the same point last year.

Compared to Q1 last year there were notable reductions in delay from:

- severe weather – 51% better.
- track faults (including broken rails) – 30% better;
- real time signalling decisions – 15% better; and
- external fatalities and trespass – 12% better.

However there were increases in delays from:

- external infrastructure damage – vandalism /theft– 49% worse (largely cable theft);
- track circuit and axle counter failures – 10% worse (largely on the West Coast route); and
- points failures – 8% worse (also largely on the West Coast route).

4 (a) and (b) – Delays to passenger/freight trains

In Q1, Network Rail delay minutes for passenger trains, normalised by train kilometres run, were 9% lower than in Q1 last year and 1% lower than Network Rail's internal target.

For freight trains, delay per 100 train kilometres was 3.4% lower than in Q1 last year and 0.4% lower than Network Rail's internal stretch target.

We had concerns in 2007-08 about the level of delay for freight operators and asked Network Rail for an explanation. We were informed that:

- freight delay per 100 train kilometres was worse than target in 2007-08 but both freight delay measures (total delay minutes and delay per 100 train kilometres) were at the lowest ever level;
- the 2007-08 target was very challenging – probably too aggressive; and
- actual performance was severely affected by flooding and other incidents in the year.

Freight operators continue to cause a disproportionate amount of inter-operator delay. Year-to-date, they account for 46.7% of all such delays but less than 9% of total distance operated. This highlights the importance of Network Rail managing down FOC on TOC delay.

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast
							Year end target
5 - Asset failures	Actual 4-weekly average	**4,370**	**4,150**	**3,801**	**3,904**	**4,066**	**n/av**
Number of infrastructure incidents	Previous year's actual	**4,410**	**4,654**	**4,327**	**4,576**	**4,370**	***45,668***

5 – Asset failures

Infrastructure reliability continues to improve. Assets are failing less often and overall infrastructure delay is down. However, the rate of improvement varies considerably on different parts of the network. Although there are fewer incidents, there are signs that Network Rail's interventions are not always as effective as they could be – causing delays to increase in some cases.

The general trend of improving infrastructure reliability continued in the quarter, 8% down on Q1 last year.

Train delay caused by these incidents also fell, 6.4% down on Q1 last year.

Although this is an encouraging picture, there are significant geographical variations in performance of the infrastructure, and not all of Network Rail's customers have had the same positive experience of asset reliability. We are conducting special investigations relating to specific routes and/or particular asset types.

Track

Most measures of track condition are continuing to improve steadily, with fewer track faults and condition-related speed restrictions and significantly less delay as a result compared to Q1 last year. Network Rail is continuing to address problems caused by rolling contact fatigue.

There were significant reductions in track faults and speed restrictions (TSRs) caused by track condition, with both almost 20% lower than in Q1 last year and delay caused down by 31% in both cases. The biggest improvement was achieved in the Western territory.

The one exception to this trend was in the South East territory, where the number of TSRs increased considerably by 83%. We believe that an important factor here was the increase in rolling contact fatigue rail defects on some routes south of London, caused by the introduction of new heavier trains with stiffer suspensions. Even though the number of incidents and the delay caused are relatively small in relation to all infrastructure totals, there were noticeable increases in the measures that relate to this problem. It remains a complex issue, but Network Rail is working with the train operating companies and train owners to develop and implement initiatives that should address the issues and lead to improvements during the course of this year. We will be monitoring the position closely.

1. Great Britain

Signalling and train control

Trends in the performance of the signalling and train control assets are less positive than those for track condition. Although the number of incidents in Q1 was also down from Q1 last year, the delay caused increased in several key areas.

The most positive trends for this group of assets are the reductions in the number of track circuit failures, cable faults, incidents associated with other elements of the signalling system and telecoms failures. It is more disappointing to note that points and signal failures remained broadly static compared to Q1 last year, while the number of level crossing failures increased by 13%. Figures in this category are worse in all territories except Scotland.

Even where the number of infrastructure faults fell, in many instances delay increased compared to Q1 last year. For example, delay caused by point failures was a little over 5% higher; track circuit delays increased by 8%, signal failures by 9% and cable faults by 37%.

We have asked Network Rail to explain a recent increase in the number of higher risk-rated signalling incidents, reversing a steadily improving trend over recent years. It is perhaps too early to suggest that this is the start of a deteriorating trend but we will be seeking more information and monitoring these figures closely over the coming months.

Electrification

Quarter 1 performance data suggests that the overall reliability of the electrification assets improved, with 13% fewer incidents and 22% less delay than in Q1 last year.

However, the number of major incidents causing significant delay actually increased, with a notable impact upon performance in Anglia, on the West Coast main line and on the DC network in southern England. More than half of these incidents appear to have been caused by poor quality construction and maintenance.

The number of incidents causing significant delay was above last year's levels on both the AC network (17 incidents by the end of Q1 compared with 15 last year) and DC network (seven incidents compared with three last year).

The biggest impact of the AC system failures was in the LNW territory (West Coast main line) where eight of the 17 incidents occurred, and in Anglia with five incidents in Q1 compared with two last year. In contrast, the two failures on LNE (East Coast main line) represent a considerable improvement on last year. There was one incident in Scotland.

Although the total number of incidents was small, the effect of any single system failure can be highly disruptive. At this stage our detailed investigations suggest that at least half of the incidents occurring are attributable to construction and maintenance regime failures (i.e. management and supervision issues) rather than trends in underlying asset condition. We are continuing to investigate the performance and reliability of the electrified network, to probe Network Rail's own assessment of the issues and to understand what actions it is taking to improve overall reliability.

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast
							Year end target
6 - Asset stewardship index (ASI)	Actual	**0.70**	**0.69**	**0.66**	**0.63**	**0.62**	**n/av**
Composite of seven asset condition measures	Network Rail target	***0.72***	***0.71***	***0.71***	***0.70***	***0.68***	***0.61***
7 - Activity volumes (track renewals only)	Actual cumulative	**104.9**	**99.1**	**97.6**	**97.1**	**94.9**	**99.4**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***

6 – Asset stewardship index (ASI)

The ASI continues to outperform the ACR2003 target and Network Rail's own internal stretch target. This performance is replicated in all the territories with the corresponding ASI-R measure. The quarter ended with an ASI of 0.624, 8% better than Network Rail's period target of 0.68 and 11% lower than in Q1 last year.

7 – Activity volumes (track renewals only)

Plain line track renewals

Network Rail renewed[1] 457 km of plain line track in Q1 compared to a planned output of 482 km. This is a composite measure, comprising rails, sleepers and ballast. Although this is a shortfall of 5% against the Q1 target, it is significantly (32%) down on the previous quarter.

Switch and crossing renewals

Network Rail renewed[1] 91 switch and crossing units compared with a planned output of 93 units.

1 Excludes West Coast route modernisation

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
8 (a) - Expenditure (OMR)	Year to date actual	**1,084**	**2,240**	**3,872**	**5,187**	**1,163**	**5,937**
Operating, maintaining and renewing the network	Year to date budget	***1,171***	***2,423***	***4,161***	***5,611***	***1,255***	***5,895***
(£ millions)	Variance %	**-7.4**	**-7.6**	**-6.9**	**-7.6**	**-7.3**	
8 (b) - Expenditure (enhancements)	Year to date actual	**127**	**261**	**481**	**743**	**249**	**1,356**
Enhancing the network	Year to date budget	***154***	***341***	***555***	***749***	***276***	***1,278***
(£ millions)	Variance %	**-17.5**	**-23.5**	**-13.3**	**-0.8**	**-9.8**	

8 – Expenditure variance

Comparison to budget: Year-to-date

Q1 total expenditure was £119 million (7.8%) lower than budget. The majority of the underspend was on renewals (£98 million, 13.8%) and enhancements (£27 million, 9.8%).

Spend on non-WCRM renewals was only 2.4% higher than in Q1 last year, even though the 2008-09 full year budget for non-WCRM renewals is 18.9% higher than for last year.

Network Rail's explanation of the £27 million variance on enhancements is that it is mainly due to savings in the Thameslink programme (£36 million).

Comparison to budget: Full year

For the full year, Network Rail is forecasting to spend £120 million (1.7%) more than budget, largely due to an overspend of £78 million (6.1%) on enhancement expenditure. This is explained further in the major projects section.

For renewals, Network Rail is forecasting an overall overspend of £13 million (0.4%). This comprises an extra £135 million (28.1%) on the WCRM, offset by an underspend of £122 million (4.1%) on non-WCRM renewals largely due to the deferral of the fixed telephone network (FTN) programme (£107million). This forecast assumes that Network Rail will catch up the year-to-date renewals variance.

In our view, Network Rail faces a challenge in delivering its forecast renewals programme in 2008-09, as it involves a significant step up in expenditure in comparison to 2007-08 (20.6%) and would be the highest annual level of renewal spend in CP3. Given the underspend in the year-to-date, we have doubts about the company's ability to deliver its forecast full year renewals programme.

We will include in the Periodic Review 2008 final conclusions document our view of Network Rail's expenditure in 2008-09, which will take account of Network Rail's forecast, the year-to-date underspend and its historical renewals underspends against budget. Our 2008-09 expenditure assumptions are used to adjust the opening regulatory asset base and debt levels, which impact on the levels of access charges in CP4.

1. Great Britain

Comparison to ACR2003 determination:

Forecast total expenditure for the full year is £2,132 million higher than the ACR2003 determination. Network Rail says this is due to:

- increased spend on additional enhancement projects (£864 million), primarily the Thameslink project (£296 million), NRDF schemes (£98 million), out-performance fund (£79 million), customer sponsored schemes, for example Virgin car parks (£86 million) and Airdrie to Bathgate (£78 million);
- overspend on WCRM (£599 million) due to delays to delivery and increase in the anticipated final cost of the programme;
- overspend on non-WCRM renewals (£505 million) largely due to expenditure on EEA (£156 million), expenditure on the FTN programme (£ 188 million), overspend on track renewals as a result of lower efficiencies than assumed at ACR2003 £115 million and expenditure additional to that assumed in the ACR2003 determination to improve Network Rail's performance (£57 million);
- increased maintenance spend of £83 million due to the impact of traffic growth (particularly on the West Coast main line); and
- Non-controllable opex is £125 million higher due to increases in traction electricity costs, BT Police as a result of the programme to increase safety at stations and the increase in the ORR licence fee.

This will be offset by net income of £44 million from schedule 8 payments, due to improved train performance.

1. Great Britain

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
9 - Financing	Actual	**69.7**	**68.9**	**68.6**	**69.4**	**66.3**	**69.3**
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	***70.5***	***70.0***	***70.2***	***72.4***	***66.2***	***68.4***
10 - Financial efficiency index (FEI)	Year to date actual	**80.0**	**80.1**	**78.9**	**78.1**	**79.8**	**76.7**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	***80.5***	***79.6***	***78.5***	***77.9***	***78.6***	***75.3***

9 – Financing (Net debt to RAB ratio)

At the end of Q1 Network Rail's net debt to RAB ratio of 66.3% was within the regulatory limit but 0.1% higher than its budget. According to Network Rail, this is due to net debt being £43 million below budget (largely as a result of the lower expenditure described above) and the RAB being £70 million lower than budget (due to spend on projects that can be added to the RAB being lower than budget).

A forecast net debt to RAB ratio of 69.3% at the end of the year is also within the regulatory limit and higher than the budget by 0.9%. This is due to a combination of an increase in the forecast year-end net debt of £211 million (due to the expenditure variances described above and changes to their creditor position) and a forecast RAB of £82 million lower than budget (due to spend on projects that can be added to the RAB being lower than budget).

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q1 and in the forecast for the full year, efficiency is worse than the FEI targets due to actual track renewals unit costs being higher than budget/target and overspend on opex and maintenance costs.

2. England and Wales

Summary data (England and Wales) Q1 2008-09 (1 April - 21 June 2008)

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
2 - Passenger train performance	Actual at end of quarter	**88.1**	**88.6**	**89.2**	**89.8**	**90.0**	**n/av**
Public performance measure (PPM) (MAA) (%)	Industry target	**88.0**	**88.3**	**88.9**	**89.4**	**89.9**	**90.6**
3 - Network Rail delay minutes	Year to date actual	**1.9**	**4.1**	**6.9**	**8.9**	**1.8**	**8.3**
Number of delay minutes (millions) attributed to Network Rail	ORR target	**2.0**	**4.1**	**7.0**	**9.0**	**1.8**	**8.3**
5 - Asset failures	Actual 4-weekly average	**3,943**	**3,811**	**3,456**	**3,510**	**3,700**	**n/av**
Number of infrastructure incidents	Previous year's actual	**3,983**	**4,244**	**3,901**	**4,151**	**3,943**	***41,765***
6 - Asset stewardship index (ASI)	Actual	**0.63**	**0.63**	**0.60**	**0.57**	**0.57**	**n/av**
Composite of seven asset condition measures	Network Rail target	***n/av***	***0.64***	***0.64***	***0.62***	**n/av**	**n/av**
7 - Activity volumes (track renewals only)	Actual cumulative	**104.7**	**98.9**	**97.5**	**97.2**	**95.1**	**98.9**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***
8 (a) - Expenditure (OMR)	Year to date actual	**990**	**2,037**	**3,517**	**4,705**	**1,064**	**5,416**
Operating, maintaining and renewing the network	Year to date budget	**1,059**	**2,188**	**3,759**	**5,058**	**1,150**	***5,389***
(£ millions)	Variance %	**-6.5**	**-6.9**	**-6.4**	**-7.0**	**-7.5**	
8 (b) - Expenditure (enhancements)	Year to date actual	**124**	**254**	**466**	**719**	**235**	**1,237**
Enhancing the network	Year to date budget	**147**	**331**	**530**	**710**	**260**	***1,160***
(£ millions)	Variance %	**-15.6**	**-23.3**	**-12.1**	**1.2**	**-9.6**	
10 - Financial efficiency index (FEI)	Year to date actual	**80.4**	**80.3**	**78.9**	**78.4**	**81.9**	**78.7**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	***80.9***	***79.5***	***78.5***	***78.9***	***80.6***	***77.2***

See data note on page 23. Network Rail's own internal targets are in *italics*.
See pages 24-25 for KPI definitions and development.

3. Scotland

Summary data (Scotland) Q1 2008-09 (1 April - 21 June 2008)

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
2 - Passenger train performance	Actual at end of quarter	**89.1**	**89.4**	**90.2**	**90.6**	**91.0**	**n/av**
Public performance measure (PPM) (MAA) (%)	Industry target	**89.0**	**88.8**	**89.5**	**90.0**	**90.7**	**90.6**
3 - Network Rail delay minutes	Year to date actual	**132.0**	**247.0**	**439.7**	**604.8**	**104.0**	**562.0**
Number of delay minutes (millions) attributed to Network Rail	ORR target	**182.6**	**362.7**	**642.0**	**820.0**	**160.6**	**762.0**
5 - Asset failures	Actual 4-weekly average	**427**	**339**	**345**	**394**	**366**	**n/av**
Number of infrastructure incidents	Previous year's actual	**427**	**409**	**426**	**424**	**427**	***3,903***
6 - Asset stewardship index (ASI)	Actual	**0.79**	**0.68**	**0.65**	**0.70**	**0.68**	**n/av**
Composite of seven asset condition measures	Network Rail target	***0.86***	***0.85***	***0.91***	***0.97***	***0.91***	***0.71***
7 - Activity volumes (track renewals only)	Actual cumulative	**108.1**	**101.2**	**98.6**	**96.1**	**111.5**	**105.1**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***
8 (a) - Expenditure (OMR)	Year to date actual	**94.0**	**203.0**	**355.0**	**482.0**	**99.0**	**521**
Operating, maintaining and renewing the network	Year to date budget	**113.0**	**235.0**	**402.0**	**553.5**	**105.0**	
(£ millions)	Variance %	**-16.5**	**-13.7**	**-11.6**	**-12.9**	**-5.7**	***506***
8 (b) - Expenditure (enhancements)	Year to date actual	**3.0**	**7.0**	**15.0**	**23.9**	**14.0**	**119**
Enhancing the network	Year to date budget	**7.0**	**10.0**	**25.0**	**38.7**	**16.0**	
(£ millions)	Variance %	**-52.9**	**-30.0**	**-39.1**	**-38.2**	**-12.5**	***118***
10 - Financial efficiency index (FEI)	Year to date actual	**75.6**	**78.4**	**79.1**	**77.3**	**74.2**	**71.1**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	***78.2***	***77.8***	***77.8***	***77.9***	***73.4***	***70.1***

See data note on page 23. Network Rail's own internal targets are in *italics.*
See pages 24-25 for KPI definitions and development.

3. Scotland

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast
							Year end target
2 - Passenger train performance	Actual at end of quarter	**89.1**	**89.4**	**90.2**	**90.6**	**91.0**	**n/av**
Public performance measure (PPM) (MAA) (%)	Industry target	**89.0**	**88.8**	**89.5**	**90.0**	**90.7**	**90.6**
3 - Network Rail delay minutes	Year to date actual	**132.0**	**247.0**	**439.7**	**604.8**	**104.0**	**562.0**
Number of delay minutes (millions) attributed to Network Rail	ORR target	**182.6**	**362.7**	**642.0**	**820.0**	**160.6**	**762.0**

2 – Passenger train performance

PPM MAA for Scotrail at the end of Q1 was 91.0%, an improvement of 1.9 percentage points over Q1 last year.

3 – Network Rail delay minutes (Scotland route)

Network Rail was well ahead of both regulatory and business plan targets for Q1.

3. Scotland

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
5 - Asset failures	Actual 4-weekly average	**427**	**339**	**345**	**394**	**366**	**n/av**
Number of infrastructure incidents	Previous year's actual	**427**	**409**	**426**	**424**	**427**	***3,903***
6 - Asset stewardship index (ASI)	Actual	**0.79**	**0.68**	**0.65**	**0.70**	**0.68**	**n/av**
Composite of seven asset condition measures	Network Rail target	***0.86***	***0.85***	***0.91***	***0.97***	***0.91***	***0.71***
7 - Activity volumes (track renewals only)	Actual cumulative	**108.1**	**101.2**	**98.6**	**96.1**	**111.5**	**105.1**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***

5 – Asset failures

The general trend of improving infrastructure reliability across the whole of the network is more than matched in Scotland, where asset failure incidents were 14% less than in Q1 last year. Since the performance of the infrastructure in Scotland already compared very well with any other part of the network, the success in delivering reliable infrastructure in Scotland continues to be well ahead of the national rate of improvement.

The number of asset failure incidents fell in 15 of the 19 infrastructure categories in Q1, including most of the major causes such as track circuit failures (30% better), points failures (7% better) and signal failures (10% better). Although the overall figures continue to compare very well with the rest of the network, Scotland was the only territory in which this number did not improve. Perhaps connected with this, Scotland had the highest level of rail defects remaining in track. Network Rail appears to have made less progress with reducing this figure than elsewhere on the network.

There was a substantial increase in the number of telecoms failures - 65% higher than in Q1 last year.

6 – Asset stewardship index (ASI-R)

The equivalent regional measure (the ASI-R) was 25% better than Network Rail's internal stretch target, better than the GB trend. This confirms our view that the overall progress being made in managing the condition of the infrastructure in Scotland compares very favourably with the overall network picture.

7 – Activity volumes (track renewals only)

Network Rail renewed 47km of plain line track in Scotland in Q1 compared to a planned output of 48 km, and delivered the planned renewal of seven switch and crossings.

3. Scotland

Key performance indicators (KPIs)		2007-08				2008-09	2008-09
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Year end forecast / Year end target
8 (a) - Expenditure (OMR)	Year to date actual	**94.0**	**203.0**	**355.0**	**482.0**	**99.0**	**521**
Operating, maintaining and renewing the network	Year to date budget	**113.0**	**235.0**	**402.0**	**553.5**	**105.0**	***506***
(£ millions)	Variance %	**-16.5**	**-13.7**	**-11.6**	**-12.9**	**-5.7**	
8 (b) - Expenditure (enhancements)	Year to date actual	**3.0**	**7.0**	**15.0**	**23.9**	**14.0**	**119**
Enhancing the network	Year to date budget	**7.0**	**10.0**	**25.0**	**38.7**	**16.0**	***118***
(£ millions)	Variance %	**-52.9**	**-30.0**	**-39.1**	**-38.2**	**-12.5**	
10 - Financial efficiency index (FEI)	Year to date actual	**75.6**	**78.4**	**79.1**	**77.3**	**74.2**	**71.1**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	**78.2**	**77.8**	**77.8**	**77.9**	**73.4**	**70.1**

8 – Expenditure variance

Comparison to budget: Year-to-date

Q1 total expenditure was £8 million (6.6%) lower than budget. The majority of the underspend was on renewals (£6 million, 10.3%), largely due to in-year slippage on various programmes.

Comparison to budget: Full year

For the full year, Network Rail is forecasting to spend £16 million (2.6%) more than budget; largely due to overspend of £13 million (4.4%) on renewals. This is different to the position on non-WCRM renewals in Great Britain because the implementation of the FTN programme is more weighted to England & Wales at this stage of the project.

Comparison to determination:

Forecast total expenditure for the full year is £198 million higher than the indicative ACR2003 determination.

Network Rail says this is due to:

- additional enhancement projects not funded by ACR2003 (£119 million), primarily due to Airdrie Bathgate (£ 78 million) and Glasgow Kilmarnock (£13 million);
- renewals spend is £79 million higher than the ACR2003 determination as a result of deferral from prior years, overspend on track renewals as a result of lower efficiencies than assumed at ACR2003 and expenditure additional to that assumed in the ACR2003 determination to improve Network Rail's performance; and
- non-controllable opex is £3 million higher largely reflecting increased traction electricity costs.

These increases in expenditure are offset by £3 million of savings in controllable operating costs.

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q1 efficiency was worse than the FEI target largely due to actual track renewals unit costs being higher than budget. Network Rail is forecasting the full-year FEI to be worse than the target largely due to forecast track renewals unit costs being higher than the target and an overspend on opex offset by spending less than budget on maintenance.

4. Major projects and other significant issues

West Coast route modernisation (WCRM)

As reported in the previous monitor, Network Rail has supplemented its delivery plan with additional possessions, intended to increase the certainty of delivery of the December 2008 timetable change.

Network Rail's revised plan is currently dependent on achieving 25 key milestones, 21 of which are in 2008 and are critical to achieving the December 2008 timetable. At the time of publication eight major milestones had been delivered, with a further four milestones planned to be commissioned during the Trent Valley blockade due to finish on the 8 September.

The independent reporter is satisfied that Network Rail's West Coast team is adhering to its management processes for risk assessment and is pro-actively identifying delivery risks and managing the necessary mitigation measures. Providing the project team continues to diligently manage the delivery of the work scope and mitigation of the delivery risks, delivery to programme is achievable.

Aside from the challenge of delivering the complex enhancement projects in 2008, there is the additional challenge for Network Rail to improve the current poor performance of the route infrastructure, particularly south of Rugby. As reported elsewhere in this monitor the West Coast main line performance has been very poor this year and shows no sign of improvement, giving rise to significant concern that the reliability of both old and new assets is not sufficiently robust to support the higher levels of train service in the December 2008 timetable.

Network Rail has produced a recovery plan that shows reliability improving back to the agreed JPIP targets by January 2009. ORR has asked to see evidence that Network Rail's action plans are sufficiently scoped and are being delivered on the ground. We will expect to see real improvements in Q2 2008-09.

Possessions overrun

Following the overruns at Rugby, Liverpool Street station and Shields Junction over the New Year period, and the subsequent ORR investigation, we found Network Rail in breach of its Network Licence and issued a Final Order. This requires it to deliver real improvements in its project management by 31 December 2008, particularly addressing weaknesses in the planning, risk assessment and site management of projects, and failures of communication within the company and with train operators.

After consulting with the industry, Network Rail delivered its improvement plan on 27 June 2008. We have scrutinised it carefully and taken into account the responses to the consultation, and (through the independent reporter) we have checked progress in key areas in accordance with the plan. We wrote to Network Rail on 31 July to confirm that we accept the plan as complying with the relevant requirements of the Order.

The order also requires the plan to be fully implemented by 31 December, so that real benefits are being delivered to rail users through a significant reduction in disruption from overrunning engineering work. A key part of the plan is the commitment to develop and report against relevant KPIs including measures of train cancellations and delays due to engineering overruns.

The reporter will review progress at the end of October to check that Network Rail is on course to comply fully with the requirements of the final order by December 31.

ORR will be auditing Network Rail in early 2009, to check that the plan has delivered the necessary improvements on the ground. At that point we will expect to find that the changes (other than those which we have agreed will need longer to implement) are fully operative and effective across all relevant project work.

4. Major projects and other significant issues

Implementation of ERTMS and GSM-R

Introduction of GSM-R (the train radio system) and ERTMS (the train control system) are both mandated in European legislation to aid the movement of trains across international borders within Europe. Once common systems are in place it will be possible for trains to operate throughout the EU without needing multiple communication and control systems. But these are hugely complex projects and it will be years before the full benefits are realised.

In Great Britain Network Rail is responsible for leading programmes to implement both GSM-R and ERTMS, although these will significantly affect both the infrastructure and the trains. So far both programmes are at an early stage. Trial sites have been developed; the radio system is on test in the Glasgow area and the control system will be trialled on the Cambrian line in Wales next year. These trials are important to expose and iron out technical problems before national roll-out and to identify how to manage operational issues that might be particular to Great Britain.

Both programmes require much greater co-operation between different industry parties – operators, rolling stock owners and manufacturers - than has usually been needed in the past. Introduction of GSM-R and ERTMS involve fitting new equipment to trains, and for ERTMS a major transfer of 'intelligence' and train control functionality from the infrastructure to the rolling stock. This raises a variety of new commercial issues such as procuring and scheduling train fitment, possible impacts on the train delay attribution system, staff training and management of spares.

Furthermore these projects are technically complex. Success will require a sustained high degree of committed co-operation to resolve the technical and operational challenges which are likely to arise as they proceed. For this to happen it will be essential that the commercial issues are also addressed effectively.

What will be needed are arrangements which bring the relevant parties together to work as joint participants in the programmes with a sufficient degree of shared interest in a successful outcome. Existing industry processes such as 'network change' do not necessarily provide the best models for this. In discussions with Network Rail and other interested parties we are exploring the strengths and weaknesses of current approaches so that the most suitable way forward can be found.

4. Major projects and other significant issues

Table 1 **Enhancement expenditure**

£ million	2008-09							
	Year to date				Full year			
	Actual	Budget	Variance	Variance %	Forecast	Budget	Variance	Variance %
ACR funded	120.5	114.8	5.7	5.0%	573.8	493.1	80.7	16.4%
Government sponsored	77.7	122.0	-44.3	-36.3%	470.6	538.2	-67.6	-12.6%
NRDF	24.1	13.8	10.2	74.0%	98.0	77.9	20.1	25.8%
Out performance	17.3	8.1	9.2	113.7%	78.6	64.7	13.8	21.3%
TOC sponsored	9.6	17.3	-7.7	-44.7%	86.1	101.9	-15.8	-15.5%
Other	0.0	0.0	0.0	-	11.0	2.1	8.9	-423.8%
Total	**249.1**	**276.0**	**-26.9**	**-9.7%**	**1,318.1**	**1,278.0**	**40.1**	**3.1%**

Enhancement schemes

ACR2003 funded

- Expenditure on ACR2003 funded schemes is forecast at £81 million over budget in 2008-09. Network rail says this is due to:
- WCRM project full-year forecast is £27 million above the budget figure, reflecting the re-profiling of work following the recent review;
- Reading station forecast is for £14 million overspend; and
- the inclusion of an extra £21 million for the safety and environment category of projects which was not included in the budget.

Government sponsored

In Q1 lower than expected spend on Thameslink and the 'Access for all' enhancements meant Government sponsored spend was £44 million less than budgeted.

The Q1 underspend for Thameslink of £35 million translates into a full year forecast £63 million below budget, mainly because of reduced costs of property and TOC compensation.

The 'Access for all' forecast is lower because of slower than anticipated site progress arising from unforeseen ground conditions and buried services, the suspension of works arising from planning issues and delays in awarding contracts. The Q1 spend was £8 million less than budget; the full year forecast is that spend will be £15 million less than budget.

Network Rail discretionary fund (NRDF)

Network Rail is expecting to spend £20 million more than budgeted this year for NRDF, after the Q1 spend exceeded the budget by £10 million.

TOC sponsored

The Q1 full year forecast is £16 million lower than the budget for this category of enhancement, because of delays to the development works, and to finalising agreements with Virgin, for the programme of enhancements to West Coast main line car parks.

5. Key to tables and data notes

Key to Network Rail monitor graphs

Key:-

On or better than target

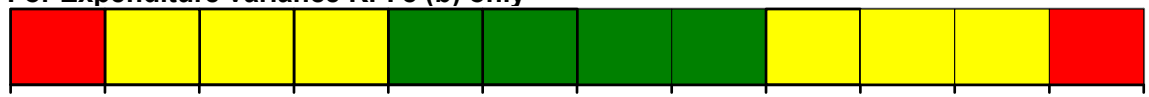
0.1-10% worse than target

More than 10% worse than target and clear cause for concern (otherwise yellow).

n/app	Information not applicable
n/av	Information not available at the moment

For Expenditure variance KPI 8 (a) only

For Expenditure variance KPI 8 (b) only



Data notes

Where an indicator is shown to be red, we will assess the reasons for this and determine the extent to which there is cause for concern and what Network Rail needs to do to improve the situation.

Introduction

Safety data is measured monthly and published by Rail Safety and Standards Board (RSSB) each calendar quarter.
All other data is four-weekly based. There are 13 four-week periods (P) in a financial year. The period quarters (Q) are set out below.

Q1	Q2	Q3	Q4
P1-3	P4-6	P7-10	P11-13

KPIs 1, 2 and 6 are actual values at the end of quarter.
KPI 2 is a 'moving annual average' (MAA) the total for the previous 13 four weekly periods divided by 13. (This definition of MAA makes it a lagging indicator). Latest quarter is a provisional estimate.
Network-wide KPIs 1 and 9 are not disaggregated below network level.
For KPI 2, an increase over time denotes improvement.
For KPIs 3, 4, 5, 6 and 10, a decrease over time denotes improvement.
For KPI 6, the ASM has been replaced by the ASI for the whole network and ASI-R for routes. Historic targets for this measure are not available.
Figures in the monitor are the latest available and may be further updated.

Please note that RSSB PIM data and National rail trends are based on calendar months. The Network Rail monitor reflects the Network Rail four-week periods and quarters split by period rather than by calendar month. This results in some small differences in figures reported.

Targets

The 'actual' data is compared with the appropriate ORR target where one has been set. Otherwise Network Rail's own internal target (to meet Network Rail's required overall outputs as set by ORR) is used. Where this is not available or appropriate, the data for the corresponding period in the previous year is used as the comparator.

6. KPI definition and developments

KPI 1 Safety risk

The train accident precursor indicator model (PIM), which is managed by the Rail Safety and Standards Board (RSSB), measures the risk per million train miles of a train accident, e.g. collisions, derailments, fires or striking a road vehicle at a level crossing. The measure incorporates 84 precursor events in six groups. Around 65% of the risk arises from events largely under the control or the responsibility of Network Rail, e.g. track geometry, infrastructure failures, environmental factors (such as flooding or land slips) and minimising level crossing misuse.The PIM risk indicator was set to a reference value of 100 at the end of March 2002 and it provides a measure of the change in risk relative to this level. A reduction in the index is therefore beneficial, denoting a reduction in risk.

KPI 2 Passenger train performance

The public performance measure (PPM) represents the percentage of trains run by franchised passenger operators arriving at their destination within a specified lateness margin (five or ten minutes) and making all planned station stops. This measure captures all delay causes (including Network Rail and train operators). For simplicity, the Great Britain monitor reports PPM for all franchised TOCs. The England & Wales monitor reports PPM for all franchised passenger operators with the exception of First ScotRail. The Scotland monitor reports only First ScotRail PPM, as it accounts for the great majority of passenger train mileage in Scotland.

KPI 3 Network Rail delay minutes

This measures the total number of minutes delay to all passenger and freight trains where the cause of delay is attributed to Network Rail.

For England & Wales and for Scotland, we compare Network Rail's delay to passenger trains with our derived target.

KPIs 4 (a) & 4 (b) Passenger and freight delay

These measures are delay minutes per 100 train kilometres. For franchised passenger operators, we compare delay against a derived regulatory target. For freight operators, we compare delay against Network Rail's target.

KPI 5 Infrastructure assets - Asset failures

This is the total number of incidents causing train delay where the cause is the responsibility of Network Rail. This measures the performance of assets where failure directly delays trains.

KPI 6 Infrastructure assets - Asset stewardship index (ASI) (GB only)

This is a composite index that includes elements (e.g. track geometry) where degradation is more gradual and does not necessarily cause train delays. This established measure has been adopted on an interim basis, but we intend to work with Network Rail to develop an indicator which covers a wider range of infrastructure assets and which has no overlap with the asset failures measure.

KPI 6 Infrastructure assets - Asset stewardship index - routes (ASI-R) (England and Wales, and Scotland)

The asset stewardship measure has been replaced by the ASI-R. The ASI-R is similar to the network-wide ASI and differs only in detailed respects for the track geometry, which in part explains the difference in the national figures shown in the England and Wales, and Scotland monitors compared with those in the Great Britain monitor. The split ASI-R also uses different baselines for different parts of the network, which prevents direct comparisons of local asset stewardship with this measure. We expect Network Rail to develop this measure to facilitate benchmarking across the network.

6. KPI definition and developments

KPI 7 Activity volumes

While Network Rail can analyse its expenditure by class of work, at present it can only provide a detailed measure of the volume of track renewals. Network Rail has been reviewing for some time a composite measure encompassing the vast majority of infrastructure renewals. A draft of this has now been received and is under review. The activity volumes measure in this monitor remains confined to track renewals.

KPI 8 (a) & (b) Expenditure

(a) compares Network Rail's expenditure on operations, maintenance and renewals (OMR) against the company's own budgeted expenditure.

(b) compares Network Rail's expenditure on enhancements (excluding third party funding and investment) against the company's own budgeted expenditure.

KPI 9 Financing (Debt to RAB (regulatory asset base) ratio)

This financial indicator measures Network Rail's net debt position as a percentage of its regulatory asset base (RAB). This is one way of measuring the financial gearing of the company and is used for regulatory purposes.

The actual figures are based on actual net debt (on a regulatory basis) divided by the company's own valuation of the RAB at the end of the period concerned. The budget figures are calculated similarly, using budgeted net debt and budgeted RAB.

KPI 10 Financial efficiency index (FEI)

This index shows changes in Network Rail's operating, maintenance, and renewal expenditure, normalised to take account of changes in the volume of work required.

Total maintenance expenditure is normalised for the change in equivalent track miles (a measure of track type, length, traffic tonnage and speed). Plain-line track renewals expenditure is normalised for changes in the volume of track renewed. Expenditure on switch and crossing renewals is normalised for changes in switch and crossing volumes renewed. Expenditure on major resignalling schemes is normalised by signalling equivalent units. A base score of 100 reports efficiency levels equivalent to actual performance in 2003-04, scores below this represent efficiency gains beyond 2003-04 performance.

Major schemes

There is no single performance indicator for projects. We monitor projects which are specifically funded in the ACR2003, for emerging expenditure against the regulatory settlement, and for the delivery of projects compared to high-level objectives.

Feedback

We welcome feedback on the content and format of this publication. If you have any comments, please contact Alan Hayden-Case on 020 7282 3861 or alan.hayden-case@orr.gsi.gov.uk