Annual efficiency and finance assessment of Network Rail 2012-13

September 2013

Contents

Acronyms and abbreviations

Abbreviation / acronym	Meaning
AICR	Adjusted interest cover ratio
AMCL	Asset Management Consulting Limited
AMIP	Asset management improvement programme
Arup	Ove Arup & Partners Limited
ATOC	Association of Train Operating Companies
BCAM	Buildings & civils asset management
Capex	Capital expenditure
CaSL	Cancellations and significant lateness
CP3	Control period 3 (1 April 2004 – 31 March 2009)
CP4	Control period 4 (1 April 2009 – 31 March 2014)
CP5	Control period 5 (1 April 2014 – 31 March 2019)
Credo	Credo Business Consulting LLP
DfT	Department for Transport
DP	Network Rail's delivery plan
EBSM	Efficiency benefit sharing mechanism
ECML	East Coast Mainline
FIM	Financial indemnity mechanism
FVA	Financial Value Added
GBP	Pound sterling (£)
Halcrow	Halcrow Group Limited
IOPI	Infrastructure output price index
LEK	LEK Consulting Limited
Network Rail	Network Rail Infrastructure Limited
NSIP	National Stations Improvement Programme
OM&R	Controllable operating expenditure, maintenance and renewals expenditure

ONS	Office of National Statistics
Opex	Operating expenditure
ORR	Office of Rail Regulation
OSTI	Other single till income
OTM	On-track machinery
PDP	Performance delivery plan
PPM	Public performance measure
PR08	Periodic review 2008 (covering control period 4, 1 April 2009 – 31 March 2014
PR13	Periodic review 2013 (covering control period 5, 1 April 2014 – 31 March 2019
PwC	PricewaterhouseCoopers
RAB	Regulatory asset base
REEM	Real economic efficiency measure
RFOA	Rail Freight Operators Association
RICS	The Royal Institution of Chartered Surveyors
RPI	Retail price index (specifically RPI CHAW)
RVfM	McNulty Rail Value for Money Study
SBP	Network Rail's strategic business plan
TS	Transport Scotland

Executive summary

Foreword

Following the 2008 periodic review of access charges, the Office of Rail Regulation (ORR) made its final determination of the outputs that Network Rail must deliver during control period 4 (CP4), the five year period from 2009 to 2014 and of the funding that was to be made available through access charges and government grants to enable these outputs to be delivered. These outputs included punctuality and reliability requirements for passenger and freight trains, maintaining and renewing the network to ensure network capacity and availability is sustained in the short, medium and long term, and successfully completing a number of specified enhancement projects.

In determining the funding that Network Rail would require to deliver these outputs, we made a detailed assessment of the efficient level of expenditure which it would need to incur. Our determination included projections of the maintenance and renewals volumes needed to deliver Network Rail's performance targets and maintain its assets in a safe and sustainable condition and the associated maintenance and renewals costs as well as support costs and financing costs, and provisions for dealing with risk. The detailed assumptions underlying these projections were set out in our Periodic Review 2008 (PR08) final determination.

The fundamental basis of our PR08 determination was that Network Rail would bear income and expenditure risk (subject to certain provisions that deal with some aspects of risk such as inflation). Provided that Network Rail delivers all of its required outputs over CP4 as a whole, it is entitled to retain the benefit of outperformance (where income is higher and/or expenditure is lower in aggregate than assumed in our PR08 determination). Likewise, Network Rail bears the consequences of underperformance (where income is lower and/or expenditure is higher in aggregate than assumed in our PR08 determination).

Network Rail accepted our PR08 determination and set out how it proposed to deliver the required outputs and how much it would cost in its 2009 delivery plan (DP09).

Our annual efficiency and finance assessments provide a snapshot of how Network Rail is performing compared to the PR08 determination at the end of each year within a control period. The 2013 publication covers the fourth year of CP4, April 2012 to March 2013. Our 2013 assessment shows that Network Rail has not outperformed to the level it has assessed, compared to our PR08 determination for the first four years of CP4.

We acknowledge that Network Rail has implemented a number of initiatives to reduce its controllable operating, maintenance and renewals (OM&R) expenditure. These include rationalising signalling and control centres and reduced use of sub-contractors. Whilst these savings might represent a positive outcome for Network Rail's customers and funders, OM&R efficiency improvements slowed significantly in 2012-13. Network Rail has reported cumulative OM&R savings of 15.8% in 2012-13 compared to the start of CP4 which is 2.8 percentage points behind the 18.6% OM&R efficiencies that it agreed to deliver. Network Rail now appears unlikely to deliver the 23.5% OM&R efficiencies that it agreed to deliver by the end of CP4. We have considered this point in our efficiency challenge in our Periodic Review 2013 (PR13) draft determination of Network Rail's funding for control period 5 (CP5), which covers the five year period from 1 April 2014 to 31 March 2019.

Network Rail uses Financial Value Added (FVA) as a measure of its financial performance against the PR08 determination. In essence, this measures the difference between the expected and outturn levels of income less expenditure. A positive FVA figure indicates income has been higher and/or expenditure has been lower than Network Rail's 2009 delivery plan projections. Network Rail has reported cumulative FVA for the first four years of CP4 of £1.0 billion. This includes favourable variances for interest costs of £0.7 billion and for OM&R of £0.4 billion, offset by adverse variances for income of £0.1 billion and other minor items.

We consider that the positive cumulative FVA reported by Network Rail for the first four years of CP4 overstates Network Rail's outperformance against the requirements of our PR08 determination. Our assessment of Network Rail's financial performance takes account of Network Rail not delivering the required train punctuality and reliability performance targets in a number of sectors, and it has not demonstrated the sustainability of its maintenance and renewals activities. Put simply, we do not recognise as outperformance, costs that Network Rail has avoided incurring as a result of not having delivered outputs required by the determination or not managing its assets sustainably.

In line with this approach, we have adjusted the financial performance set out by Network Rail to take account of Network Rail not delivering the levels of train punctuality and reliability that it was required to deliver as part of our PR08 determination (-£0.4 billion). We have made additional adjustments for our concerns that Network Rail may not have undertaken sufficient renewals work in CP4 to date and as a result may need to spend more in the future (-£0.6 billion). We have also adjusted for issues that were not consistent between Network Rail's calculation of FVA and our PR08 determination, including that Network Rail should not claim as outperformance financing costs saved as a result of delaying capital expenditure (-£0.2 billion). Given the diverse nature of the activities that Network Rail undertakes to operate and maintain the national rail infrastructure it is difficult to establish a clear linkage between expenditure and performance and we recognise that there may be double-counting between the adjustments for outputs and renewals. We have further adjusted our assessment by +£0.4 billion for our estimate of the potential double-count.

If this avoided expenditure was taken into account, Network Rail's FVA for the four years to March 2013 would fall to +£153 million. We consider this would represent a more realistic measure of Network Rail's cumulative financial performance across the first four years of CP4.

Accordingly, we have determined that there is no scope for payments to be made to train operators under the Efficiency Benefit Sharing Mechanism (EBSM). Network Rail has to abide by our licence requirements in looking at its management reward incentives. These requirements include incentivising proven long term sustainable delivery and outperformance of our efficiency assumptions. We expect that Network Rail's Remuneration Committee will place substantial weight on our assessment in determining the level of bonuses (if any) to be paid under Network Rail's management incentive plan (MIP).

Introduction

1. This document explains our assessment of Network Rail's cumulative financial performance during the first four years of control period 4 (CP4), i.e. from 1 April 2009 to 31 March 2013. Our annual assessments are intended to help customers, funders and other interested parties gain a better understanding of Network Rail's performance compared with the CP4 financial determination that we set out in our Periodic Review 2008 (PR08) determination of Network Rail's access charges[1]. Our assessments provide a snapshot based on the best available information at a point in time and our view of Network Rail's financial performance in CP4 will continue to evolve as more information becomes available for 2013-14, the final year of the control period.

2. Our 2013 assessment separately covers Great Britain, England & Wales and Scotland. It contains information and commentary on Network Rail's expenditure and its efficiency savings compared to our PR08 determination, its income, regulatory asset base (RAB), debt and borrowing costs. Our assessment

[1] Our PR08 determination is available at http://www.rail-reg.gov.uk/upload/pdf/383.pdf.

underpins the calculation of payments to train and freight operating companies under the Efficiency Benefit Sharing Mechanism (EBSM), which provides train operators with an incentive to help improve Network Rail's efficiency in return for a share of the resulting savings. It is also relevant to the value of Network Rail's RAB, because it reflects the extent to which Network Rail has or has not spent money to maintain, renew or improve its network. We will take account of the matters examined in this report for any adjustments to Network Rail's control period 5 (CP5) opening RAB, which we will set out in our Period Review 2013 (PR13) final determination in October 2013. Our views should also be taken into account by Network Rail's Remuneration Committee in its decisions about management bonuses, under both the annual and long term incentive plans.

3. It is critically important that the rail industry delivers significant improvements in value for money. The rail industry plays a key role in the British economy and society by facilitating economic growth, social connectivity and environmental sustainability, as well as providing services directly for passengers and freight customers. Improvements in value for money allow more of these benefits to be realised at a lower cost. This is particularly important given the current economic climate, and the financial pressures it brings for households, businesses and on the public purse.

4. In 2010, we co-sponsored with Department for Transport (DfT) the Rail Value for Money (RVfM) study, led by Sir Roy McNulty, which reported in May 2011. This established a broad range of efficiency improvements which could be achieved across the rail industry by 2018-19.

5. The RVfM study built upon analysis underpinning our PR08 determination where we challenged Network Rail to deliver operating, maintenance and renewals (OM&R) expenditure savings of £1.0 billion per year by 2013-14, the final year of CP4 compared to the start of the control period[2]. If Network Rail delivers the efficiency improvements that we require in CP4 it will have achieved around a third of the RVfM study's estimated improvements by the end of 2013-14[3].

[2] Network Rail developed a Real Economic Efficiency Measure (REEM) to report efficiency improvements in CP4. If Network Rail achieves its target to deliver 23.5% cumulative REEM savings it will have delivered the efficiency improvements we assumed in our PR08 determination of 21% by the end of CP4. REEM is explained in Annex A.

[3] Network Rail now appears unlikely to achieve these efficiency targets in CP4. We have considered this point in our efficiency challenge in our PR13 draft determination of Network Rail's funding for control period 5 (CP5), which covers the five-year period from 1 April 2014 to 31 March 2019. We think that the efficiency challenge identified within the RVfM study for Network Rail itself will have been fully addressed in CP5 if Network Rail meets the challenge we set out in our PR13 draft determination.

Our assessment of Network Rail's financial performance

6. Network Rail reports its financial performance using a Financial Value Added (FVA) measure. FVA represents the difference between Network Rail's actual income and expenditure and its 2009 delivery plan (DP09), which set out how it would deliver the requirements of our PR08 determination[4].

7. Our PR08 determination does not generally require Network Rail to undertake the specific work that we have assumed it will undertake in reaching our view of the funding required for Network Rail to deliver its outputs efficiently. But where Network Rail is claiming positive FVA, we expect it to demonstrate that this has not been achieved at the expense of not delivering its required outputs, for example, in relation to train punctuality or to the detriment of the long term sustainability of its assets. Where Network Rail has not been able to demonstrate this, we will make adjustments to Network Rail's reported FVA in order to reach our own assessment of the company's financial performance compared to our PR08 determination[5]. These adjustments are based on our assessment of the costs that Network Rail may have avoided in not delivering what it was required to deliver.

8. Our assessment of Network Rail's financial performance in the first four years of CP4 is summarised in Table 1.

[4] FVA compares Network Rail's cumulative income and expenditure in CP4 to date to the planned income and expenditure in DP09 on a line by line basis and is then adjusted down by £52m to reconcile to our PR08 determination.

[5] Our assessment of Network Rail's operational performance is included in our 2012-13 Q4 Network Rail Monitor publication and our 2013 Health and Safety report which are available at http://www.rail-reg.gov.uk/upload/pdf/network_rail_monitor_1213q4.pdf and http://www.rail-reg.gov.uk/upload/pdf/health-safety-report-2013.pdf respectively.

Table 1: Network Rail's financial performance in the first four years of CP4

£m 2012-13 prices	Actual	PR08	PR08 variance	Modificat-ions between PR08 variance and FVA	Reported FVA	Our adjust-ments *	Our assess-ment of reported FVA
	(A)	(B)	(C)=(B-A)	(D)=(E-C)	(E)	(F)	(G)=(E+F)
Cumulative							
Income	-26,120	-26,088	32	-216	-184	-	-184
Controllable opex	3,913	3,457	-456	652	196	-	196
Non-controllable opex	1,877	1,718	-159	284	125	-	125
Maintenance	4,433	4,900	467	-421	46	-14	32
Renewals	10,318	11,041	723	-573	150	-664	-514
Enhancements	7,074	7,967	893	-893	-	-	-
Schedule 4 & 8**	804	728	-76	76			
Financing costs	5,753	5,699	-54	756	702	-164	538
Corporation tax	12	16	4	8	12	-	12
Rebates	198	-	-198	198			
Other	-	-	-	-52	-52	-	-52
Total	**8,264**	**9,440**	**1,176**	**-181**	**995**	**-842**	**153**

* See Table 2 for details.
** Schedule 4 and 8 is included in the income line in FVA.
Source: Network Rail's regulatory financial statements and our own analysis.

9. Network Rail has reported £995m of FVA for the first four years of CP4 (£896m for England & Wales and £99m for Scotland), which it has mostly attributed to lower financing costs (£702m) and better than expected controllable operating, maintenance and renewals expenditure savings (£392m). As summarised in Table 2, we have adjusted Network Rail's reported FVA to take account of Network Rail not delivering the train punctuality and reliability requirements that it was required to deliver as part of our PR08 determination. We have made additional adjustments for our concerns that Network Rail may not have undertaken sufficient renewals work in CP4 to date and as a result may need to spend more in the future. We have also adjusted for issues that were not consistent between Network Rail's calculation of FVA and our PR08 determination, including that Network Rail should not claim as outperformance financing costs saved as a result of delaying capital expenditure. On this basis, our assessment is that Network Rail has financially outperformed our PR08 determination by £153m for the first four years of CP4[6].

10. Our adjustments and the resulting net FVA are outlined in Table 2 below.

[6] As explained in this report these adjustments are based on new evidence about Network Rail's performance across the first four years of CP4 and not just its performance in 2012-13. Based on this new evidence our view of Network Rail's financial performance in earlier years of CP4 has also changed.

Table 2: Our adjustments to Network Rail's financial performance in the first four years of CP4

£m, 2012-13 prices	Reported FVA	Our adjust-ments	Our assess-ment of reported FVA
Network Rail's reported FVA for renewals (excluding civils)	150		
Network Rail's reported FVA for maintenance	46		
Total Network Rail's reported FVA for renewals and maintenance			196
Our adjustments:			
(a) Non-delivery of train punctuality and reliability requirements		-445	
(b) Sustainability of renewal of drainage and fencing assets		-100	
(c) Slippage of renewals work		-388	
(d) Robustness of operational property and plant and machinery efficiencies		-45	
(e) Double-count within the above adjustments		400	
Total renewal and maintenance adjustments			-578
Our assessment of reported FVA for renewals and maintenance			**-382**
Network Rail's reported FVA for interest	702		702
(f) Avoided interest costs that do not meet our recognition criteria		-164	-164
Our assessment of reported FVA for interest			**538**
Other Adjustments			
(g) Sustainability of renewal of civils assets		-100	**-100**
Network Rail's reported FVA for other categories	97		**97**
Financial outperformance of our PR08 determination	**995**	**-842**	**153**

Source: Network Rail's regulatory financial statements and our own analysis.

(a) Non-delivery of train punctuality and reliability requirements

11. As explained in our Q4 Network Rail Monitor, Network Rail has not delivered many of the train punctuality and reliability requirements that it was funded to deliver in the first four years of CP4. As documented in our 2011-12 annual efficiency and finance assessment, we assessed that Network Rail may have avoided £172m of expenditure in not delivering its requirements for 2011-12, which included £9m for Scotland. Using this same approach we have assessed that Network Rail may have avoided £436m of expenditure in not delivering its requirements for 2012-13, all wholly attributable to England & Wales, as Scotland met the requirements in 2012-13. This was calculated by using the performance fund as a means to identify a cost per percentage point of performance and then multiplying this by the gap between actual performance and required performance. Our adjustment has therefore increased by £273m to £445m to

reflect the further deterioration of train punctuality and reliability[7] in 2012-13 in England & Wales and also the non-delivery of requirements for Scotland in the period to 2011-12.

12. Network Rail has argued that its non-delivery of train punctuality and reliability requirements in 2012-13 was at least in part due to exceptional weather and other factors largely beyond its control, such as cable theft. Network Rail therefore considers that our approach overstates the costs that it may have avoided. However, in accepting our PR08 determination Network Rail agreed to bear the financial risks associated with delivering its required outputs, including for example the financial consequences of both good and bad weather.

13. Provided Network Rail delivers its required outputs, it is entitled to retain the benefit of financial outperformance (for example, where income is higher and/or expenditure is lower in aggregate than assumed in our PR08 determination). Likewise, Network Rail bears the consequences of financial underperformance. Included in FVA are many differences both positive and negative, between actual income and expenditure and our determination, for issues that Network Rail is at risk for, e.g. weather and we need to take an approach to these issues that is consistent with our PR08 determination. We have therefore not reduced our adjustment for the effect of weather.

14. It is important to note that this does not mean we expected Network Rail to keep the network operational regardless of any extreme weather event or other external factor. However, we do expect it to manage those risks appropriately and to bear the financial consequences of its decisions.

(b) Sustainability of renewal of drainage and fencing assets

15. Our review of Network Rail's Strategic Business Plan (SBP) for CP5 has provided new evidence that Network Rail should have undertaken more work to manage its drainage and fencing assets on a sustainable basis in CP4. We have estimated that Network Rail should have undertaken an additional £100m of renewals work in CP4 to manage these assets on a sustainable basis. We have adjusted Network Rail's financial performance down by £100m to take account of this avoided expenditure.

(c) Slippage of renewals work

16. We refer to lower volumes of activity undertaken than those envisaged at the time of our periodic review as scope reductions. In principle, Network Rail can recognise scope reductions as financial outperformance provided it can demonstrate sufficient evidence to show that the reductions are efficient and has not impacted on the long-term asset condition and serviceability.

17. Network Rail re-profiled approximately £1 billion of renewals work from the first two years to later years in CP4 compared to the profile of work that we assumed in our PR08 determination. Last year we

[7] This adjustment will increase if train performance deteriorates further in 2013-14, but will not reduce if performance remains the same or improves in 2013-14. This is because our assessment takes into account the requirement for Network Rail to deliver its regulatory outputs separately for each year of CP4.

considered that there was a risk that Network Rail would not be able to deliver this backlog of work in CP4. Based on our review of Network Rail's SBP for CP5 and Ove Arup & Partners Ltd (Arup), the independent reporter's review of Network Rail's 2012-13 regulatory financial statements, we consider that Network Rail will be unlikely to deliver £388m of track, signal crossing and electrification renewals work that it planned to deliver by the end of CP4. This is compared to the PR08 variance for the first four years of CP4 identified in Table 1 for renewals of £723m. Table 1 also identifies that Network Rail has claimed FVA of £150m. This leaves a difference of £573m at the end of the fourth year of CP4. We believe that Network Rail may catch up some of this of variance in the final year of CP4, but it is unlikely that it will catch up the entire difference, so we think the amount of renewals work not delivered by the end of CP4 will be £388m.

18. Network Rail has not demonstrated that this under-delivery of planned work has not resulted in an under-achievement of its required CP4 outputs, or that it will not impact on long-term asset condition and serviceability. We have adjusted Network Rail's financial performance down by £388m to take account of this.

19. Network Rail needs to deliver a significantly greater volume of renewals work in 2013-14 than it has delivered in earlier years of CP4. We will review this matter again next year to take account of the level of renewals work achieved in 2013-14.

(d) Robustness of operational property and plant and machinery efficiencies

20. As part of its independent reporter review of Network Rail's 2012-13 regulatory financial statements, Arup concluded that claimed efficiencies in relation to operational property and plant and machinery were supported by insufficient evidence for it to form any view with regard to the validity of Network Rail's claimed savings[8]. We are aware of the difficulty that Network Rail faces in proving that cost reductions represent savings for renewals categories such as operational property and plant and machinery where it does not have measures of the volume of renewals work done and therefore has no way of measuring unit costs. However, we consider that a best practice operator would need to know for its own purposes whether it was spending its money efficiently in these areas, and would set up systems capable of demonstrating these savings. We have adjusted Network Rail's financial performance down by £45m to take account of this[9].

(e) Double-count in the above adjustments

21. We recognise that adjusting for each of the matters above is subjective and taking them into consideration in isolation risks overstating our assessment of Network Rail's financial underperformance. The diverse nature of the activities that Network Rail undertakes to operate and maintain the national rail infrastructure means that it is difficult to establish a clear linkage between Network Rail's expenditure and

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[8] Arup's report is available at http://www.rail-reg.gov.uk/upload/pdf/arup-nr-regulatory-accounts-review-2013.pdf.

[9] Arup's review identified that £128m of REEM efficiencies may be overstated. This translates into £45m of greater savings than those assumed in our PR08 determination, i.e. £45m of claimed financial outperformance.

its operational performance. Therefore we need to take a cautious approach as there may be common underlying factors, which could lead to double-counting.

22. We believe that, had Network Rail undertaken additional renewals work to address our concerns about the sustainability of its asset management, it is likely that this work would have also had a beneficial impact on Network Rail's delivery of train punctuality and reliability requirements. In arriving at the adjustment of £400m to eliminate any potential double-count, we have taken into consideration:

(a) the train reliability and performance adjustment of £445m, where we have a defined loss (in this case loss of performance) but where it is difficult to estimate the exact cost of that loss; and
(b) the slippage adjustment of £388m where we have a defined cost but where it is difficult to estimate the exact loss, i.e. the effect on the network.

Given the similarity in value of these adjustments (£445m and £388m), we consider that the value of £400m for the double-count is appropriate.

(f) Avoided interest costs that do not meet our recognition criteria

23. Network Rail has reported £702m of financial outperformance for interest costs. This includes £164m of interest costs avoided as a result of deferring renewals and enhancements expenditure compared to the profile we assumed in our PR08 determination for CP4. Our PR08 determination stipulated that Network Rail should not bear the cost of bringing work forward within CP4, and that it should not benefit from deferring work within CP4. In this way, we wanted Network Rail to focus on doing what it needed to do in the control period, taking decisions on when to do the work to ensure optimal delivery rather than because of the financial implications of the timing of work within the period. We have adjusted Network Rail's financial performance down by £164m to take account of this.

24. Network Rail has issued a substantial amount of index-linked debt in CP4. Index-linked debt incurs both interest costs and accretion costs. Accretion costs are the costs as a result of the change in the value of the bond due to inflation. The repayment of these bonds is linked to Retail Price Index (RPI) inflation. As inflation has been higher in CP4 than we assumed in our PR08 determination, the accretion cost on index-linked bonds in the control period to date is £947m more than assumed in our PR08 determination. This means that Network Rail will need to pay its bond-holders substantially more when these bonds mature (in typically 20 to 30 years' time).

25. Network Rail has not included the £947m of additional accretion in its calculation of FVA as it does not consider that general inflation is controllable. It is difficult to assess how accretion should be treated in our assessment as it is controllable by Network Rail at the time it issues debt, for example, a non-index linked bond could have been issued instead, which is not linked to inflation. However, once an index-linked bond has been issued, the accretion is not as controllable, although the debt can still be refinanced. We have not adjusted our assessment for this matter. This is because we think it is better to consider this together with

Network Rail's treatment of input price inflation (which is included in reported FVA) in our 2013-14 annual efficiency and finance assessment as information for the entire control period will be available.

(g) Sustainability of renewal of civils assets

26. We place the burden of proof on Network Rail to demonstrate that any claimed savings will not have implications for the long-term condition and serviceability of the network and Network Rail's ability to deliver its outputs in the future[10].

27. Network Rail entered CP4 with a poor understanding of the condition of its bridges, tunnels and other major structures (collectively known as civils) and the amount of work that would be required to maintain these assets on a sustainable basis. This position was not helped by Network Rail having poorly defined measures of civils renewals activity and related unit costs. We agreed with Network Rail last year that renewal of these assets should be excluded from its reporting of financial performance[11].

28. Our review of Network Rail's PR13 SBP for CP5, earlier this year, provided us with new evidence about the sustainability of Network Rail's management of its civils assets in CP4. In its plan Network Rail identified that it felt it needed to increase spend on civils in CP5 by £595m compared to CP4[12]. This new evidence has made it clear that Network Rail has not undertaken sufficient work to manage these assets on a sustainable basis in CP4. Network Rail is now doing more work than it otherwise would have done as a result of the fiscal stimulus package of £250m. We have considered what Network Rail could have reasonably delivered in CP4 and we have estimated that Network Rail should have undertaken an additional £100m of renewals work in CP4 to manage these assets on a sustainable basis. We have adjusted Network Rail's financial performance down by £100m to take account of this avoided expenditure[13].

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[10] In particular, if demand on the network were to remain steady, would application of the same approach to asset management continue to deliver the currently specified outputs indefinitely?

[11] This matter is explained in our annual efficiency and finance assessment 2011-12, which is available at http://www.rail-reg.gov.uk/upload/pdf/nr_annual_asessment_2011-12.pdf.

[12] Network Rail's PR13 SBP forecast civils spend in CP5 of £2,643m compared to £2,048m in CP4. This is an increase of £595m. In order to calculate this increase on a like for like basis, we have adjusted Network Rail's forecast of civils spend in CP4 of £2,098m per Network Rail's 2013 delivery plan by adding £97m to correct an error in Network Rail's 2013 delivery plan and by deducting £147m for CEFA expenditure as that is included in Network Rail's PR13 SBP as maintenance spend.

[13] Network Rail has accepted that it is appropriate to exclude civils renewal from its reporting of financial performance due to uncertainty about the level of work required to maintain these assets on a sustainable basis. However, Network Rail does not agree that a further adjustment to financial performance is now appropriate because in its view we accepted Network Rail's approach to civils renewals in its delivery plan for CP4. However, PR08 is an output based determination, so we do not approve specific levels of work on its assets. Instead we make an assumption of the work needed for Network Rail to meet its outputs. Network Rail's delivery plan sets out the outputs it will deliver but does not overwrite our determination, e.g. the financial assumptions and the regulatory framework are unchanged. We accepted Network Rail's changes to the delivery of some of its outputs in DP09, e.g. to enhancement milestones but the regulatory framework and the financial settlement remains as set out in our PR08 determination.

(h) Concerns about Network Rail's maintenance of the network and other matters

29. Network Rail has reported £46m of FVA relating to its maintenance of the rail network. However, as documented in our 2013 Health and Safety report[14], too much of the maintenance work being carried out by Network Rail is reactive rather than preventative and we are also aware of a backlog of maintenance work that is increasing. We are concerned that Network Rail has insufficient resources to deliver all the maintenance work that it has planned in track and off-track assets, such as fencing and vegetation management. This increases the risk of asset failures and the risk of train accidents. We have seen an increase in the number of rail breaks and track geometry faults on some routes. In the 2013 Health and Safety report, we highlighted that we found poor quality risk assessments and consequently risks not being controlled so far as are reasonably practicable. We also highlighted that we found a lack of competence in some people required to complete risk assessments.

30. Consistent with our approach for 2011-12, we have not adjusted our assessment of Network Rail's financial performance for our concerns about maintenance savings to avoid a potential double-count with the train punctuality and reliability adjustment. However, we will consider this matter further in our 2013-14 annual efficiency and finance assessment.

31. As CP4 draws to a close there may be additional matters that we take into consideration in our assessment of Network Rail's financial performance for the control period as a whole, for example, the treatment of one-off issues that have affected interest costs such as VAT rebates. We will report on these additional matters and make further adjustments to our assessment of Network Rail's financial performance as further information becomes available in our 2013-14 annual efficiency and finance assessment.

32. It is important that Network Rail can robustly demonstrate claimed financial outperformance and we have said in our PR13 draft determination that we will require Network Rail to provide more robust reporting of its financial performance in CP5. Moreover, it is our view that, for CP5, we should only recognise financial outperformance where we have good evidence demonstrating its achievement, and where we are confident that this evidence reflects good quality data, systems and processes.

[14] This report is available at http://www.rail-reg.gov.uk/upload/pdf/health-safety-report-2013.pdf.

Other useful financial information

Table 3: Summary of key financial information for Great Britain

£m, 2012-13 prices	2012-13			Cumulative		
	Actual	PR08	Variance	Actual	PR08	Variance
	(A)	(B)	(B-A)	(C)	(D)	(D-C)
Expenditure						
Controllable opex	939	800	-139	3,913	3,457	-456
Maintenance	999	1,162	163	4,433	4,900	467
Renewals	2,760	2,295	-465	10,318	11,041	723
Total OM&R expenditure	4,698	4,257	-441	18,664	19,397	733
Non-controllable opex	497	449	-48	1,877	1,718	-159
Enhancements	2,046	1,607	-439	7,074	7,967	893
Schedule 4 & 8	258	150	-108	804	728	-76
Total	**7,499**	**6,463**	**-1,036**	**28,419**	**29,811**	**1,392**
Income [a]						
Franchised track access income	1,841	1,814	-27	6,920	6,814	-106
Other single till income	700	736	36	2,772	2,770	-2
Grant income	3,999	4,016	17	16,428	16,504	76
Total	**6,540**	**6,566**	**26**	**26,120**	**26,088**	**-32**
Finance						
RAB (estimated)	n/a	n/a	n/a	44,938	48,319	3,381
Net debt (nominal prices)	n/a	n/a	n/a	28,930	30,335	1,405
Financing costs (nominal prices)	1,496	1,619	123	5,753	5,699	-54
Corporation tax	-	14	14	12	16	4
Adjusted interest cover ratio	2.04	1.68	-0.36	n/a	n/a	n/a
Gearing (RAB / net debt)	n/a	n/a	n/a	64.4%	63.2%	-1.2%
Rebate payments	35	-	-35	198	-	-198

a - A negative sign for this variance implies a higher income than we assumed in our PR08 determination.

Source: Network Rail's regulatory financial statements and our own analysis.

33. In broad terms, our assessment shows that in the first four years of CP4 Network Rail has:

(a) spent £733m (3.8%) less on operating[15], maintaining[16] and renewing[17] (OM&R) the network than we assumed in our PR08 determination. This underspend was mostly due to deferral of renewals expenditure. Network Rail's cumulative OM&R efficiency improvements compared to the agreed CP4

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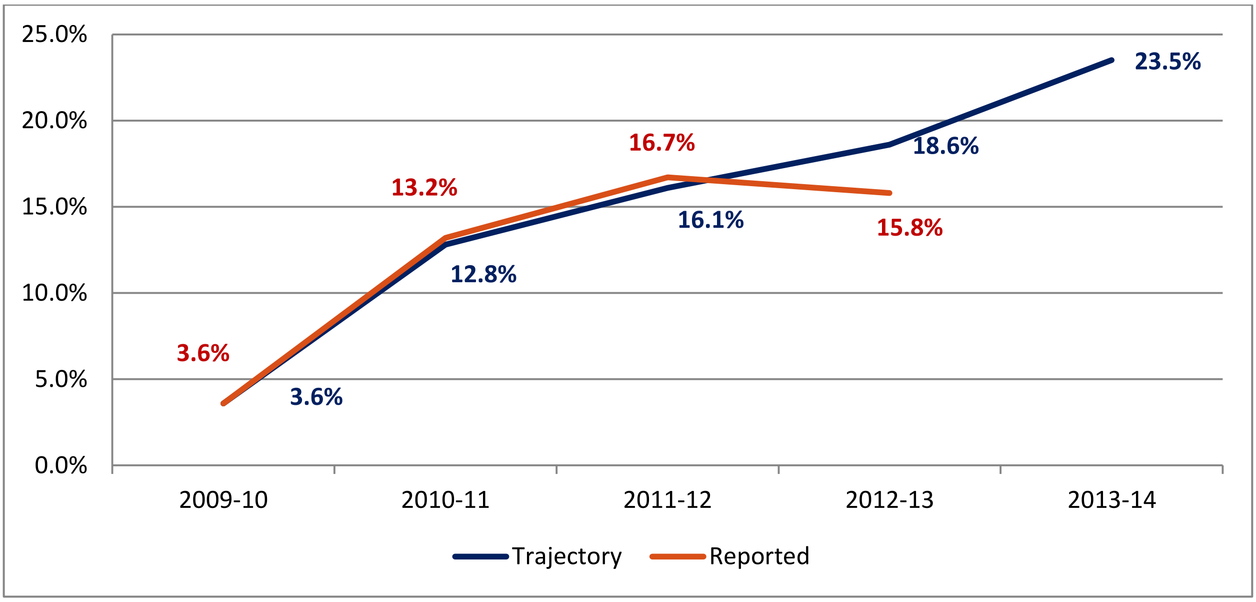
[15] Operating expenditure (opex) includes controllable and non-controllable costs. Controllable costs include network operations, e.g. signallers, and support costs, e.g. information management. Non-controllable costs include traction electricity costs. We exclude non-controllable operating expenditure from our assessment of OM&R efficiency.

[16] Maintenance expenditure relates to activities that sustain the capability of the existing infrastructure to the previously assessed standard of performance.

[17] Renewals expenditure consists of expenditure where the existing infrastructure is worn out or its condition deteriorated so that it can no longer be maintained but has to be replaced with new assets to sustain its capability. Such expenditure does not result in any change or enhancement of the performance of the original asset.

trajectory are shown in Figure 1. Network Rail has reported cumulative OM&R savings of 15.8%[18] in 2012-13 compared to the start of CP4, which was 2.8 percentage points behind the agreed OM&R efficiencies 18.6%. This represents a significant deterioration in financial performance compared to 2011-12 when Network Rail reported 16.7% cumulative savings, which was 0.6 percentage points ahead of the 16.1% agreed trajectory for that year.

Figure 1: Comparison of OM&R efficiencies compared to the agreed CP4 trajectory



Source: Network Rail's regulatory financial statements and our own analysis.

(b) spent £893m (11.2%) less on enhancements projects[19] than we assumed in our PR08 determination. This underspend was mostly due to a combination of changes in scope and timing of work of £2,495m. This underspend of £2,495m was partly offset by an additional spend of £1,602m on investment that was not included in our PR08 determination;

(c) incurred £54m (0.9%) higher financing costs than we assumed in our PR08 determination mostly due to higher than assumed accretion on Network Rail's index-linked debt. This is a result of RPI inflation having been higher than we assumed in our PR08 determination. This has been partly offset by lower than assumed interest rates;

(d) received £32m (0.1%) more overall income than was assumed in our PR08 determination mostly as a result of higher franchised track access income (£106m), offset by lower grant income (£76m);

(e) had £1,405m (4.6%) lower net debt at the end of 2012-13 than we assumed in our PR08 determination primarily due to deferral of renewals and enhancement expenditure; and

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[18] Measured on a REEM basis, a measure of OM&R costs in 2012-13 compared to costs in 2008-09, the final year of CP3 adjusted for volumes of work delivered, network traffic and other factors. See Annex A for further details.

[19] Enhancement expenditure is defined as expenditure resulting in a change to network outputs, which improves network capacity or capability (e.g. enabling higher speeds).

(f) an adjusted interest cover ratio (AICR) and net debt to RAB ratio (which we use to assess whether Network Rail should be able to finance itself on reasonable terms), within the financial limits that we set for 2012-13[20].

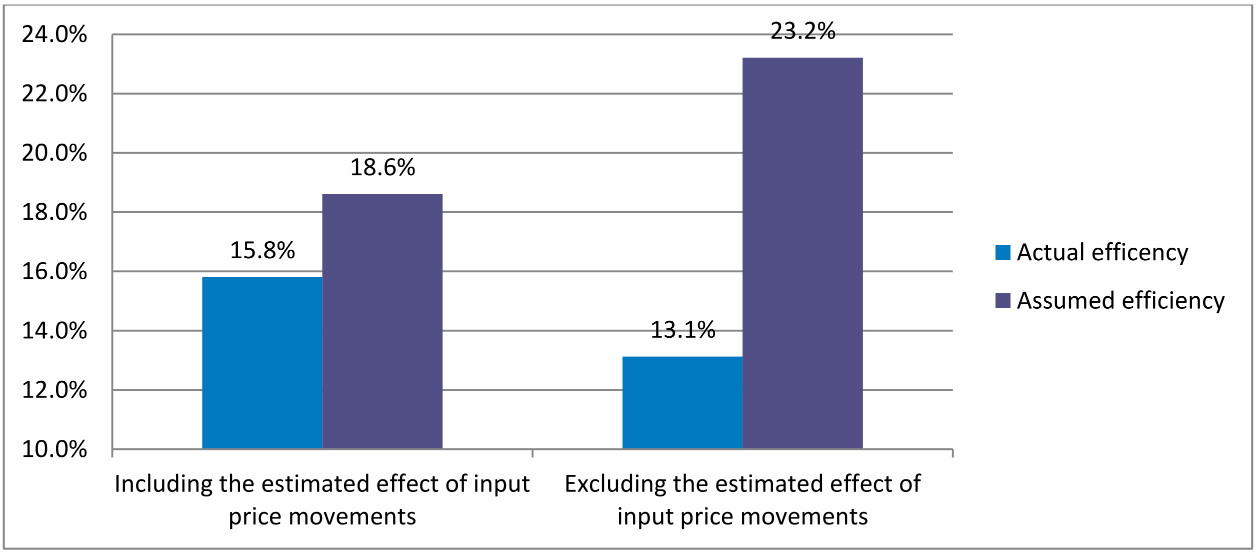
Input Prices

34. It is important that we appropriately incentivise Network Rail to manage inflation efficiently and we incentivised Network Rail in CP4 to manage input price inflation by exposing it to movements in input prices.

35. When we set our PR08 determination, there was considerable uncertainty about the state of the economy. This meant that our inflation assumptions were also uncertain. In making our decisions we assumed that Network Rail would face 4.6 percentage points higher OM&R inflation than RPI by the end of 2012-13. We exposed Network Rail to the risk that outturn input price inflation would be different to our assumption (apart from where we adjust the RAB for the movements in the infrastructure output price index (IOPI)). This means that Network Rail will bear the consequences if input price inflation is higher than we expected and will benefit if input price inflation have risen by less than we expected.

36. The prices that Network Rail has paid for its inputs have risen by less than the rate we assumed in our PR08 determination. We estimate that Network Rail's OM&R inflation has been 2.7 percentage points lower than RPI. Therefore, Network Rail may have experienced 7.3 percentage points lower input price inflation than assumed in our PR08 determination in CP4 to date. Network Rail has reported 15.8% cumulative OM&R efficiency improvements by 2012-13. However, as shown in Figure 2, adjusting for our estimate of the effect of beneficial input price movements, Network Rail's OM&R efficiency improvement would be only 13.1%.

Figure 2: Comparison of OM&R efficiencies including the estimated effect of input price movements and OM&R efficiencies excluding the estimated effect of input price movements



[20] This is further explained in Chapter 2.

Source: Network Rail's regulatory financial statements, submissions to us and our own analysis.

37. Given the importance of input prices and inflation to financial performance and efficiency, we have taken this into consideration in CP5 and we have simplified our approach. We will allocate input price risk to Network Rail, but we will not allocate general inflation risk to Network Rail. In addition, in relation to renewals, we will not be applying the adjustment for IOPI. To further simplify our approach as part of PR13, we commissioned a study performed by Credo Business Consulting LLP (Credo). As a result of that study, we have made adjustments to our efficiency assumptions to reflect the impact on Network Rail's costs from an improvement in Network Rail's management of inflation.

Scotland

38. We have separately assessed Network Rail's reported FVA for Scotland of £99m and our view is that we should make an adjustment of £41m to the reported FVA. Therefore, for Scotland we assess that the net financial performance for the control period to date is £58m. Key financial information for Scotland is summarised in Table 4. As reported in Chapter 5, variances to our PR08 determination are largely consistent with those for Great Britain. The largest difference between our assessment of financial performance in Scotland and that for Great Britain as a whole relates to our adjustment for Network Rail's non-delivery of train punctuality and reliability requirements. Unlike Great Britain as a whole, in Scotland, Network Rail delivered its required level of Public Performance Measure (PPM) in 2012-13, so we have not adjusted financial performance in Scotland to reflect non-delivery of this output in the current year, but we have carried forward the adjustment from the prior year of £9m. For the purposes of the EBSM calculation we have adjusted financial performance by the proportion of the adjustments outlined in Table 2 above attributed to Scotland. This apportionment is described in the EBSM Chapter (Chapter 3).

Table 4: Summary of key financial information for Scotland

£m, 2012-13 prices	2012-13			Cumulative		
	Actual	PR08	Variance	Actual	PR08	Variance
	(A)	(B)	(B-A)	(C)	(D)	(D-C)
Expenditure						
Controllable opex	84	72	-12	367	314	-53
Maintenance	89	112	23	387	468	81
Renewals	295	280	-15	1,142	1,345	203
Total OM&R expenditure	468	463	-5	1,896	2,127	231
Non-controllable opex	47	37	-10	146	141	-5
Enhancements	105	9	-96	625	465	-160
Schedule 4 & 8	5	9	4	43	44	1
Total	**625**	**519**	**-106**	**2,710**	**2,777**	**67**
Income [a]						
Franchised track access income	321	314	-7	838	828	-10
Other single till income	54	57	3	215	227	12
Grant income	303	313	10	1,550	1,558	8
Total	**678**	**684**	**6**	**2,603**	**2,613**	**10**
Finance						
RAB (estimated)	n/a	n/a	n/a	4,598	4,703	105
Net debt (nominal prices)	n/a	n/a	n/a	2,774	2,802	28
Financing costs (nominal prices)	140	152	12	564	555	-9
Corporation tax	-	-	-	1	1	0
Adjusted interest cover ratio	2.53	1.80	-0.73	n/a	n/a	n/a
Gearing (RAB / net debt)	n/a	n/a	n/a	60.3%	59.8%	-0.5%
Rebate payments	32	-	-32	46	-	-46

a - A negative sign for this number implies a higher income than we assumed in our PR08 determination.

Source: Network Rail's regulatory financial statements and our own analysis.

39. We have performed a separate analysis in relation to England & Wales in Chapter 4 and Scotland in Chapter 5.

Links to EBSM, RAB and MIP

40. We established an Efficiency Benefit Sharing Mechanism (EBSM) in our PR08 determination to incentivise train and freight operating companies to support Network Rail's efforts to improve its efficiency. Under the rules of the mechanism, train and freight operators share 25% of Network Rail's cumulative outperformance on a number of elements of expenditure and revenue, where they can demonstrate that they have contributed to the efficiency savings. Our assessment is that there is no financial outperformance in England and Wales, however there is financial outperformance in Scotland but this is less than the cumulative outperformance in the prior year. Therefore, there is no EBSM to share with train and freight

operators under the EBSM for 2012-13[21]. For CP4 our EBSM mechanism operates separately across England & Wales and Scotland, allowing payments to be made to train operators where there is outperformance, if we have assessed there is outperformance. For CP5 we are adopting a Route-level Efficiency Benefit Sharing Mechanism (REBS) that will see train operators share in the benefits of outperformance at a route level, improving their incentives to work with Network Rail to deliver outperformance.

41. In assessing the CP5 opening balance for the RAB, we will need to consider the adjustments to financial performance and how they may impact the RAB. We will conclude on this in our final determination.

42. Network Rail's management incentive plan (MIP) comprises an annual incentive plan (AIP) that rewards year-on-year improvement and a long term incentive plan (LTIP) that rewards improvement over the longer term. Efficiency savings and FVA (as calculated by Network Rail) are an important element of the AIP and LTIP, along with delivery of required outputs and sustainable asset management in accordance with our objectives for the MIP dated 3 March 2011. However, Network Rail's Remuneration Committee has considerable discretion in whether and what bonuses should be paid, and in exercising its discretion the Committee takes account of our view of Network Rail's performance, including our assessment of the company's financial performance. We expect the Committee to take account of our assessment in any decisions on bonuses.

Conclusion

43. Network Rail has reported £995m of financial outperformance of our PR08 determination for the first four years of CP4. However, Network Rail was funded to deliver train punctuality and performance requirements and to maintain the long-term asset condition and serviceability of the network. Network Rail has not adjusted its reported financial performance for our concerns in relation to these matters. Taking into account the expenditure that Network Rail may have avoided in relation to these matters, which we consider should not be recognised as outperformance, our assessment is that Network Rail has financially outperformed our PR08 determination by £153m for the first four years of CP4.

44. In our assessment of Network Rail's financial performance we have concluded that no payments should be made to train and freight operators under the EBSM for 2012-13. We will also take account of the matters in this report in our assessment of any adjustments to Network Rail's CP5 opening RAB, which we will set out in our PR13 final determination in October 2013. Our view on Network Rail's efficiency and financial performance should also be taken into account by Network Rail's Remuneration Committee in its decisions about management bonuses.

[21] EBSM payments to train and freight operators last year were £15.9m based on our assessment of Network Rail's cumulative financial performance in the first three years of CP4. Financial underperformance later in the control period does not result in claw-back of EBSM payments made to operators for financial outperformance earlier in the control period.

45. We expect Network Rail to continue to make efficiency savings while delivering the required outputs of train punctuality and reliability and sustainable asset management in 2013-14, the final year of CP4. This momentum is essential to delivering the targets set for the company in CP5, which ORR will expect it to achieve for the benefit of its customers, funders and the taxpayer.

1. Introduction

Purpose of this document

1.1 Network Rail operates and maintains the majority of railway infrastructure in Great Britain. One of our key roles as a regulator is to set the charges that Network Rail can levy for access to this infrastructure. We do this in periodic reviews of charges, the last of which we concluded in 2008. This review of charges (sometimes called a price control) was called the Periodic Review 2008 (PR08) determination and covers the period from 1 April 2009 to 31 March 2014 (control period 4, CP4).

1.2 A key element of a review is the assessment of what activities Network Rail needs to undertake to efficiently operate, maintain, renew and enhance its infrastructure, and what the efficient cost of these activities should be. In doing this, we challenge Network Rail to improve its efficiency. During the period until the next review we monitor Network Rail's expenditure, its progress in improving its efficiency and its financial position.

1.3 This document explains our assessment of Network Rail's financial performance for the year ending 31 March 2013, the fourth year of control period 4 (CP4) and for the cumulative assessment of Network Rail's financial performance for CP4 to date. It is intended to help customers, funders and other interested parties gain a better understanding of Network Rail's performance compared with the CP4 financial settlement that we set out in our PR08 determination of Network Rail's access charges.

1.4 Our 2013 assessment separately covers Great Britain, England & Wales and Scotland. It contains information and commentary on Network Rail's expenditure and its efficiency savings compared to our PR08 determination, its income, regulatory asset base (RAB), debt and borrowing costs. Our assessment underpins the calculation of payments to train and freight operating companies under the Efficiency Benefit Sharing Mechanism (EBSM), which provides train operators with an incentive to help improve Network Rail's efficiency in return for a share of the resulting savings. It is also relevant to the value of Network Rail's RAB, because it reflects the extent to which Network Rail has or has not spent money to renew and enhance its network. We will take account of the matters examined in this report for the calculation of Network Rail's CP5 opening RAB, which we will set out in our Periodic Review 2013 (PR13) final determination in October 2013. Our views should also be taken into account by Network Rail's

Remuneration Committee in its decisions about management bonuses under both the annual and long term incentive plans.

1.5 We also monitor Network Rail's operational performance, including in respect of safety risk, train performance, asset performance and planning. These assessments are included in our 2013 Health and Safety report and our 2012-13 Q4 Network Rail Monitor publication[22].

1.6 The information contained within this document has been compiled from Network Rail's 2012-13 regulatory and statutory financial statements, our PR08 determination, Network Rail's 2009 delivery plan (DP09) for CP4 and updates to that plan, and the work of independent reporters and other sources as specified.

1.7 Network Rail's move towards regionally devolved management and the development of alliancing arrangements with train operators will place increasing importance on route-level financial information. As with 2011-12, further analysis of this information will be included in our GB rail industry financial information 2012-13 publication in the spring of next year[23].

Structure of this document

1.8 Chapter 2 presents our analysis of Network Rail's expenditure and efficiencies, income, RAB and financing.

1.9 Chapter 3 reports on the Efficiency Benefit Sharing Mechanism (EBSM) for 2012-13.

1.10 Chapters 4 and 5 present separate analysis for England & Wales and Scotland. We explain variances only where the reasons for variances differ from that of Great Britain.

1.11 Annex A explains how we monitor Network Rail's efficiency in more detail.

1.12 Annex B provides supporting information for the EBSM.

1.13 Unless otherwise stated, all financial figures in this document are in 2012-13 prices. There might be some differences in numbers in the tables due to rounding.

[22] The 2013 Q4 Network Rail Monitor is available at http://www.rail-reg.gov.uk/upload/pdf/network_rail_monitor_1213q4.pdf and our 2013 Health and Safety report is available at http://www.rail-reg.gov.uk/upload/pdf/health-safety-report-2013.pdf.

[23] Our 2011-12 GB rail industry financial information report is available at http://www.rail-reg.gov.uk/upload/pdf/gb-financials-2012.pdf.

Feedback

1.14 We welcome comments on the content of this document. These should be sent to:

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2. Great Britain

Summary

2.1 This chapter presents our analysis of Network Rail's expenditure, efficiency, income, regulatory asset base (RAB) and financing for its operations across Great Britain as a whole. It covers:

(a) expenditure and efficiency;
(b) income;
(c) RAB;
(d) net debt and financing costs;
(e) financial indicators; and
(f) issues with Network Rail's reported financial performance.

2.2 Our analysis relies primarily on information within Network Rail's regulatory financial statements and our PR08 determination. Where appropriate, we also draw upon other sources of information including Network Rail's performance in 2011-12, the company's DP09 and delivery plan updates (which set out Network Rail's own expected performance) and the findings of work by the independent reporters.

Expenditure and efficiency

2.3 Network Rail's cumulative total expenditure in the first four years of CP4 was £34,382m, which was £1,144m (3.2%) lower than we assumed in our PR08 determination. As summarised in Table 2.1, the most significant variances were renewals (£723m lower spend) and enhancements (£893m lower spend[24]) where Network Rail has deferred work. This is due to a different phasing of capital expenditure within CP4 than we assumed in our PR08 determination.

2.4 Network Rail's total expenditure in 2012-13 was £9,030m. This was £934m (11.5%) higher than we assumed in our PR08 determination. The variance is mostly attributable to renewals and enhancements. There was £465m of higher spend on renewals and £92m of lower spend on enhancements than we assumed in our PR08 determination, primarily due to a different phasing of capital expenditure within CP4. This net higher spend of combined renewals and PR08 enhancements expenditure of £373m (due to re-

[24] The £893m is a combination of £2,495m deferred expenditure offset by an additional spend of £1,602m on non PR08 enhancements.

profiling) is coupled with £531m of additional expenditure on enhancements that was not included in our PR08 determination.

Table 2.1: Analysis of expenditure (Great Britain)

£m 2012-13 prices	Actual	PR08 determination	PR08 variance	Actual 2011-12	Prior year variance
	(A)	(B)	(B-A)	(C)	(C-A)
Cumulative					
Controllable opex	3,913	3,457	-456		
Maintenance	4,433	4,900	467		
Renewals	10,318	11,041	723		
Sub-total (OM&R)	**18,664**	**19,397**	**733**		
Non-controllable opex	1,877	1,718	-159		
Enhancements (PR08)	5,472	7,967	2,495		
Enhancements (non-PR08)	1,602	-	-1,602		
Total enhancements[25]	7,074	7,967	893		
Schedule 4 & 8	804	728	-76		
Financing costs	5,753	5,699	-54		
Corporation tax	12	16	4		
Rebates	198	-	-198		
Total expenditure	**34,382**	**35,526**	**1,144**		
2012-13					
Controllable opex	939	800	-139	933	-6
Maintenance	999	1,162	163	997	-2
Renewals	2,760	2,295	-465	2,528	-232
Sub-total (OM&R)	**4,698**	**4,257**	**-441**	**4,891**	**193**
Non-controllable opex	497	449	-48	433	-64
Enhancements (PR08)	1,515	1,607	92	1,629	114
Enhancements (non-PR08)	531	-	-531	510	-21
Total enhancements	2,046	1,607	-439	2,139	93
Schedule 4 & 8	258	150	-108	177	-81
Financing costs	1,496	1,619	123	1,514	18
Corporation tax	-	14	14	3	3
Rebates	35	-	-35	41	6
Total expenditure	**9,030**	**8,096**	**-934**	**8,765**	**-265**

Source: Network Rail's regulatory financial statements and our PR08 determination.

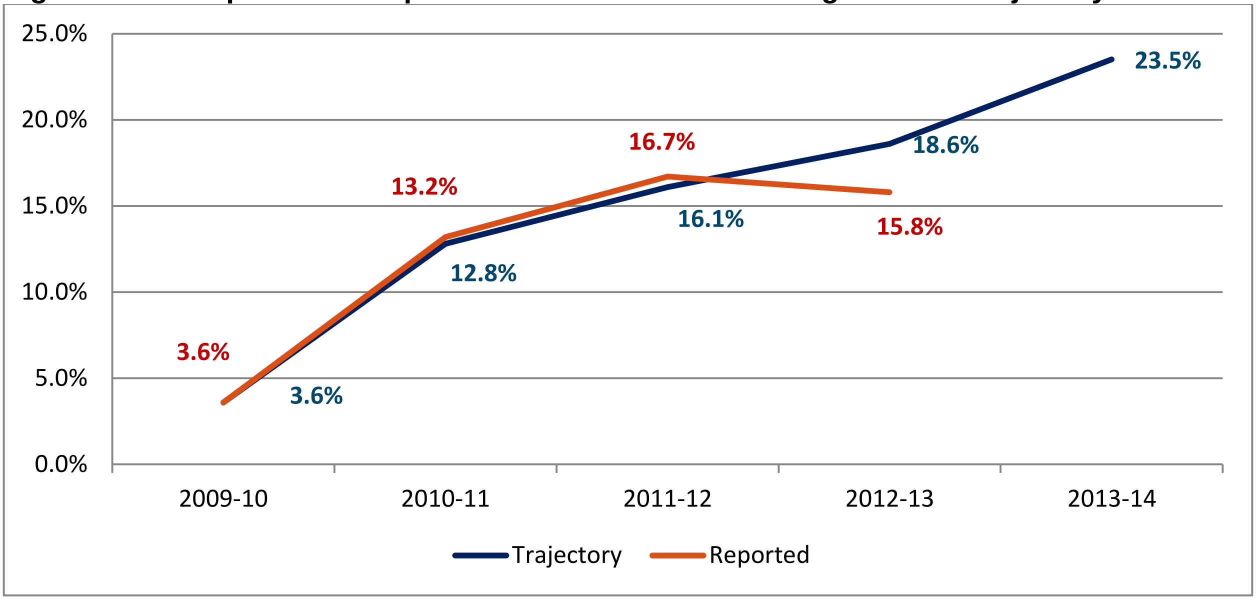
2.5 Figure 2.1 shows Network Rail's cumulative controllable operating, maintenance and renewals (OM&R) efficiency improvements compared to Network Rail's Real Economic Efficiency Measure (REEM) trajectory of efficiency improvements that Network Rail is to deliver in CP4[26]. Network Rail has reported OM&R savings of 15.8% by the end of 2012-13 compared to the start of the CP4. This is 2.8 percentage points

[25] This includes all Network Rail funded enhancements but excludes third party funded schemes (£272m) which are funded by external parties on a pay-as-you-go basis.

[26] See Annex A for further details. Network Rail's agreed CP4 efficiency trajectory was set out in a letter from ORR to Network Rail in March 2011. A copy of this letter is available at http://www.rail-reg.gov.uk/upload/pdf/nr-cp4-success-010311.pdf.

behind the 18.6% savings that Network Rail aimed to achieve by the end of 2012-13 in order to deliver the OM&R efficiency savings that we challenged it to achieve by the end of CP4. This gap represents a deterioration in performance compared to 2011-12 when Network Rail reported 16.7% cumulative savings which was 0.6 percentage points ahead of the 16.1% agreed OM&R efficiencies for that year.

Figure 2.1: Comparison of reported OM&R efficiencies to agreed CP4 trajectory



Source: Network Rail's regulatory financial statements and our own analysis.

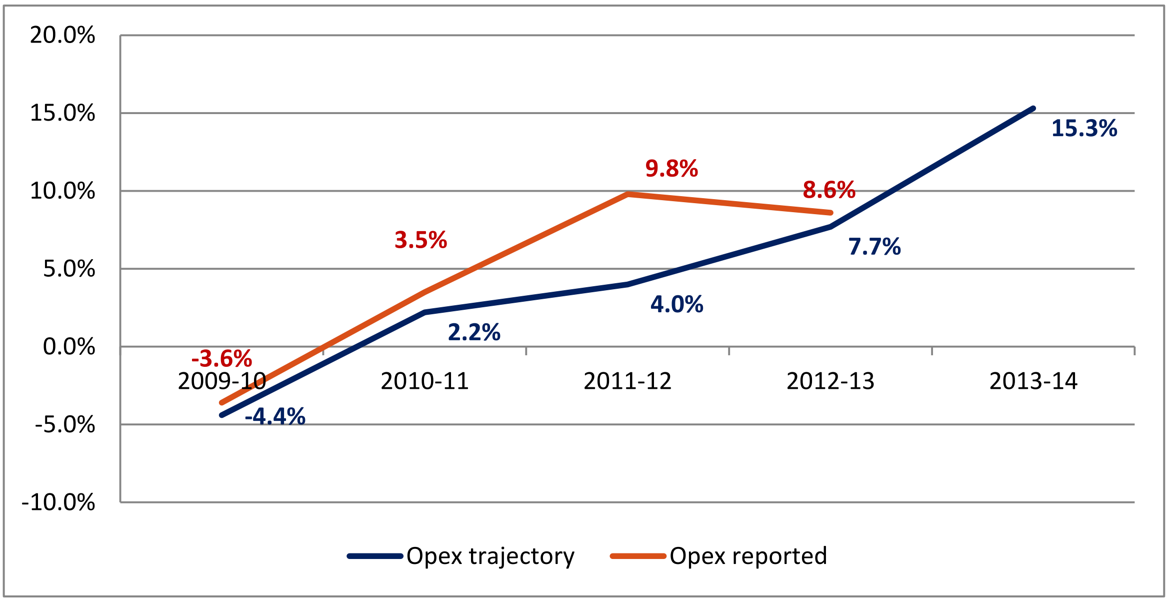
Controllable opex

2.6 Controllable operating expenditure (controllable opex) includes network operations and support function costs. Network operations encompass activities that directly relate to the operation of the network such as signalling and timetabling. Support functions include activities that largely do not directly affect the running of the network such as information management, human resources and finance.

2.7 Cumulative controllable opex in the first four years of CP4 was £3,913m, which was £456m (13.2%) higher than we assumed in our PR08 determination. Controllable opex was £939m in 2012-13, which was £139m (17.4%) higher than we assumed in our PR08 determination and £6m (0.6%) higher than in 2011-12. Network Rail has attributed the higher costs compared to our PR08 determination to above inflation increases for staff costs, e.g. Network Rail agreed to increase operational staff salaries by Retail Price Index (RPI) + 0.5% in 2012-13. Higher costs were also a result of lower efficiency gains of 1.6% in relation to hours worked compared to 2011-12, which saw higher efficiency gains of 5.2% in relation to hours worked.

2.8 As shown in Figure 2.2, Network Rail has reported cumulative controllable opex efficiency savings of 8.6% by the end of 2012-13 compared to the start of CP4. This is 0.9 percentage points ahead of the 7.7% savings that Network Rail aimed to achieve by 2012-13.

Figure 2.2: Comparison of reported controllable opex efficiencies to CP4 trajectory



Source: Network Rail's regulatory financial statements and our own analysis.

2.9 Network Rail has explained that the majority of its controllable opex efficiency savings by the end of 2012-13 of 8.6% compared to the start of CP4 are due to the benefit of management actions taken earlier in CP4. Initiatives to reduce the costs include the introduction of new technologies to rationalise signal boxes and control centres, which enables lower staffing and salary costs. Insurance costs have reduced within controllable opex as a result of a change in policy to increase the level of excess in Network Rail's insurance arrangements. Whilst this reduces insurance premiums, it is expected to result in increased costs elsewhere within the business. Overall, this is expected to have a negligible effect on savings to Network Rail as a whole.

2.10 Input prices have increased by less than we assumed in our PR08 determination for Network Rail's controllable opex activities. As examined elsewhere within this chapter, this may have had a beneficial effect on the company's controllable opex costs.

Non-controllable opex

2.11 Network Rail categorises costs associated with a number of operating activities as non-controllable opex. The most significant of these are traction electricity, cumulo (i.e. business) rates and British Transport Police costs. Although we treated some of these costs in a similar way to support costs in our PR08 determination, i.e. by applying an efficiency challenge to them, they were referred to as "non-controllable" in our PR08 determination[27].

[27] We consider that some aspects of these costs are controllable and we refer to them as industry costs and rates in our PR13 draft determination. For consistency with our PR08 determination we refer to these costs in the annual efficiency and finance assessment as "non-controllable" for CP4.

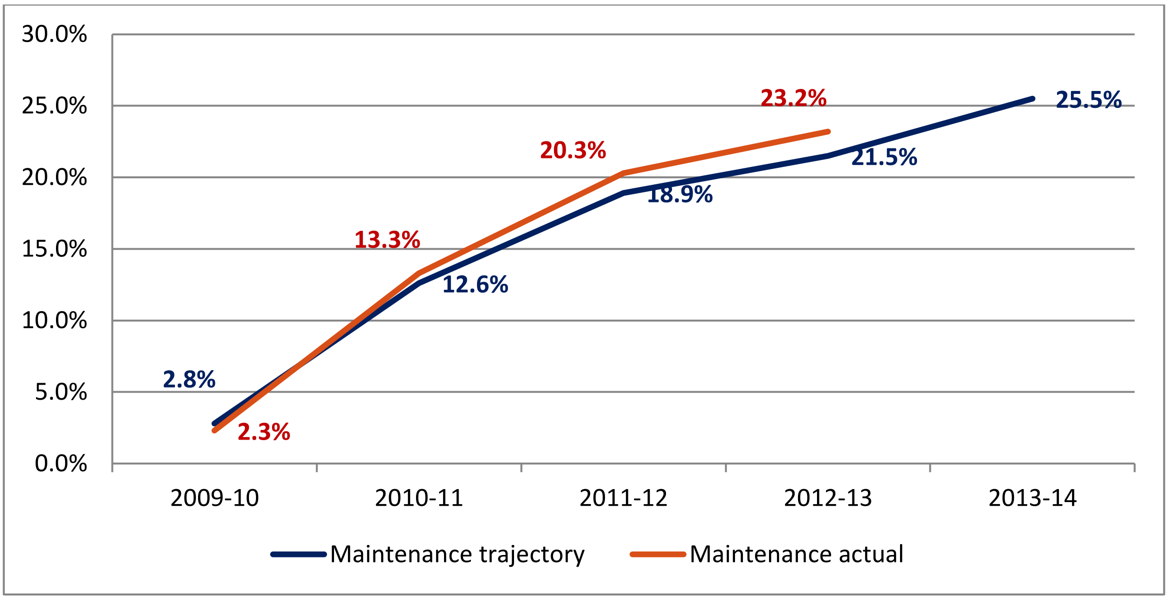
2.12 Cumulative non-controllable opex was £1,877m in the first four years of CP4, which was £159m (9.3%) higher than we assumed in our PR08 determination. Non-controllable opex was £497m in 2012-13, which was £48m (10.7%) higher than we assumed in our PR08 determination and £64m (14.9%) higher than in 2011-12. These variances were primarily due to higher market electricity prices than we assumed in our PR08 determination. This cost increase was offset by higher traction electricity income received from train operators, which is included in other single till income.

Maintenance

2.13 Maintenance expenditure relates to activities that sustain the condition and capability of existing infrastructure to the previously assessed standard of performance. Cumulative maintenance expenditure was £4,433m in the first four years of CP4, which was £467m (9.5%) lower than we assumed in our PR08 determination. Maintenance expenditure was £999m in 2012-13, which was £163m (14.0%) lower than we assumed in our PR08 determination and £2m (0.2%) higher than in 2011-12.

2.14 As shown in Figure 2.3, Network Rail has reported substantial cost savings of 23.2% in its maintenance of the network by the end of 2012-13 compared to the start of CP4 and is 1.7 percentage points ahead of the 21.5% savings that Network Rail aimed to achieve by 2012-13.

Figure 2.3: Comparison of reported maintenance efficiencies to CP4 trajectory



Source: Network Rail's regulatory financial statements and our own analysis.

2.15 Network Rail has attributed the majority of its cumulative maintenance efficiency savings of 23.2% by the end of 2012-13, to staff cost savings from the continuing reorganisation of its maintenance functions, which started earlier in CP4. Maintenance headcount has reduced by a further 272 staff (1.7%) in 2012-13. Network Rail considers that the reorganisation's standardisation of working practices and terms & conditions has enabled better roster planning and management.

2.16 However, in our 2013 Health and Safety report we raise significant concerns regarding maintenance resources. We state in the report that Network Rail has insufficient resource to deliver all the maintenance work it planned in track and off-track assets, such as fencing and vegetation management, which can create the potential for an increase in the risk of asset failures and the risk of train accidents. Although the dataset was small, we saw increases in the number of rail breaks and track geometry faults on some routes. We also found poor quality risk assessments and consequently risks were not being controlled so far as is reasonably practicable. We reported that we found a lack of competence in some people required to complete risk assessments.

2.17 Other maintenance savings identified by Network Rail include new technologies and better procurement processing, including negotiating supplier discounts for prompt payment.

2.18 Ove Arup & Partners Limited (Arup), the independent reporter for data assurance, has raised concerns similar to us about Network Rail's ability to demonstrate that cost reductions in the maintenance organisation have not affected the robustness and serviceability of the network. Our assessment of this matter is considered in the 'Issues with Network Rail's reported financial performance' section below.

2.19 Input prices have increased by more than we assumed in our PR08 determination for Network Rail's maintenance activities in the current year, but are lower for the control period to date. As examined elsewhere within this chapter, this may have had a negative impact in the current year, but a beneficial effect on the company's maintenance costs in the control period to date.

Renewals

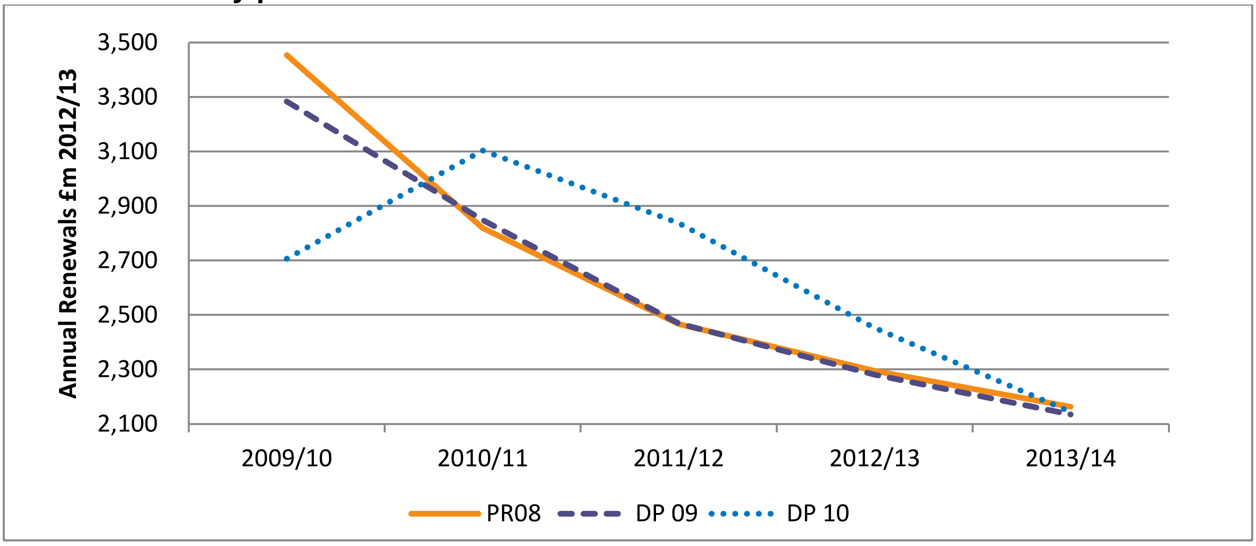
2.20 Renewals expenditure comprises work to replace assets which have usually reached, or are nearing, the end of their useful lives with the modern equivalent asset. Renewals expenditure is treated as capital and added to the RAB as discussed separately below. Track, signalling and civils account for nearly two-thirds of all renewals expenditure. The other main categories of renewals are telecommunications, electrification, plant and machinery and operational property.

2.21 Cumulative renewals expenditure was £10,318m in the first four years of CP4, which was £723m (6.5%) lower than we assumed in our PR08 determination. Renewals expenditure was £2,760m in 2012-13, which was £465m (20.3%) higher than we assumed in our PR08 determination and £232m (9.2%) higher than in 2011-12. These variances are primarily due to Network Rail's different and continually changing profile of planned renewals work than we assumed in our PR08 determination. This changing profile has resulted in a significant deferral of work from earlier in CP4 to later in CP4, i.e. Network Rail did less work early in CP4 and now has to do more work later in the control period.

Deferral of renewals work in CP4

2.22 Network Rail published a CP4 delivery plan in 2009 (DP09), which set out how the company intended to deliver its outputs over the control period. This delivery plan had a different profile of expenditure across CP4 than we assumed in our PR08 determination. Network Rail then revised its asset policies in 2010 resulting in further changes to its planned profile of renewals. As shown in Figure 2.4, this resulted in a significant deferral of renewals expenditure during CP4 in Network Rail's 2010 delivery plan update (DP10) compared to what we assumed in our PR08 determination.

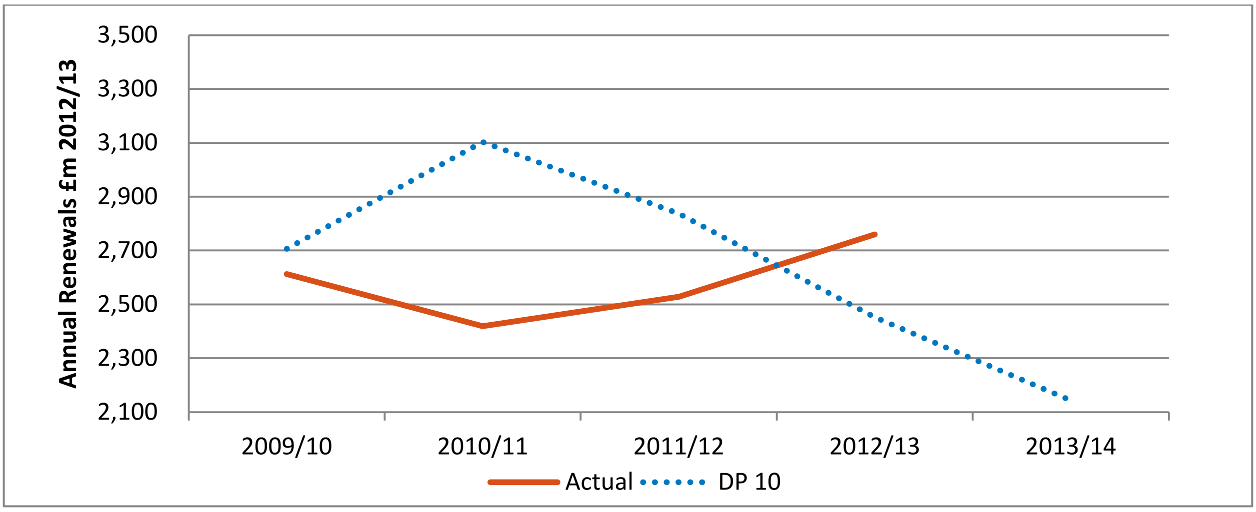
Figure 2.4: Profile of CP4 renewals expenditure in our PR08 determination and Network Rail's 2009 and 2010 delivery plans



Source: Our PR08 determination and Network Rail's 2009 and 2010 delivery plans.

2.23 As shown in Figure 2.5, Network Rail did not deliver its planned level of renewals expenditure in each of the first three years of CP4 in comparison to DP10. Updates to Network Rail's delivery plan in 2011 and 2012 show that this has resulted in a substantial backlog of work being built up for the final two years of CP4. As discussed in the 'Issues with Network Rail's reported financial performance' section below, Network Rail has not delivered the additional renewals work that it set out to deliver in 2012-13 to catch up on this backlog. It is now unlikely to deliver its planned levels of renewals work for CP4 as a whole.

Figure 2.5: Comparison of actual renewals expenditure to Network Rail's 2010 delivery plan



Source: Network Rail's 2010 delivery plan and regulatory financial statements.

Renewals efficiencies

2.24 Network Rail has reported renewals savings of 14.8% by the end of 2012-13 compared to the start of CP4. The majority of these savings were in track, signalling and operational property. Network Rail has identified the following key savings:

(a) £128m of track savings, mostly attributable to volumes savings due to the new track asset management policy that Network Rail introduced in 2010, which prioritises track renewals on high usage sections with the aim of improving network performance whilst reducing overall required volumes of work. However, in our assessment, this has not been achieved (this is discussed in the 'Issues with Network Rail's reported financial performance' section below);

(b) £127m of signalling savings, mostly attributable to unit cost savings from initiatives including the use of new signalling technologies which have lower design and installation costs, better alignment of signalling possession schedules with other workbanks and better security resulting in reduced theft from construction projects; and

(c) £100m of operational property savings from initiatives including improved workbank planning, efficient contract management and efficient project governance. As examined in the 'Issues with Network Rail's reported financial performance' section below, Arup's review of the 2012-13 regulatory financial statements has raised concerns about the quality of the evidence supporting these claimed efficiencies and we have made an adjustment to financial performance.

2.25 As in 2011-12, Network Rail has excluded civils renewals from its efficiency reporting due to uncertainty about the sustainability of its civils renewals work in CP4. As discussed in the 'Issues with Network Rail's reported financial performance' section below, on the basis of new evidence that we have received, we now consider that Network Rail has not undertaken sufficient renewals work on its civils assets in CP4 and we have adjusted our assessment of Network Rail's financial performance for this matter.

2.26 Input prices have increased by less than we assumed in our PR08 determination for Network Rail's renewals activities. As examined elsewhere within this chapter, this may have had a beneficial effect on the company's renewals costs.

Enhancements

2.27 Enhancement expenditure comprises work to improve network capacity or capability, for example enabling higher line speeds or station capacity. It is treated as capital and, together with renewals expenditure, is added to the RAB as described in the regulatory accounting guidelines (RAGs).

2.28 Cumulative enhancements expenditure was £7,074m in the first four years of CP4. This included £5,390m of PR08-funded schemes, £82m of schemes that related to CP3 and £1,602m of other Network Rail funded schemes[28].

2.29 Cumulative expenditure on PR08-funded schemes was £2,495m (31.3%) lower than we assumed in our PR08 determination. The principal reasons for this variance are:

(a) approximately £1,200m of the variance is attributable to significant projects, where some expenditure has been deferred out of CP4 with the DfT's and our agreement[29]. These projects are Thameslink (£669m), Intercity Express Programme (£176m), East Coast Mainline (ECML) Improvements (£176m) and West Coast Mainline (WCML) (£177m)[30];

(b) approximately £325m of the variance is attributable to re-profiled enhancements projects compared to our PR08 determination, with some projects being delivered earlier and some later[31]. The schemes with the largest underspend are Platform Lengthening – Southern (£141m), Crossrail / Reading (£62m), Birmingham New Street Gateway project (£75m) and the St Pancras-Sheffield journey time improvements (£48m);

(c) approximately £225m of the variance is attributable to Network Rail being behind its original plans to deliver the projects for some of the ring-fenced funds, notably projects within the Strategic Freight Network (£82m), the Seven Day Railway fund (£106m) and the Safety and Environment fund (£36m). Network Rail is still looking to accelerate expenditure to secure the benefits of these funds within CP4;

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[28] This includes £200m of expenditure not meeting our requirements for RAB addition in accordance with the regulatory accounting guidelines (RAGs). The £200m includes adjustment for income generating schemes and facility fees (£139m), outperformance expenditure as defined in the RAGs (£45m) and schemes with a payback period within the control period (£16m). Network Rail also undertook £1,247m of work on third party funded enhancement schemes. These schemes are not included in our analysis.

[29] These projects have gone through the PR08 enhancements change control process.

[30] Details of these agreed changes are available on our website.

[31] Note that Network Rail's RAB will be adjusted, so that it does not benefit from the financing costs it has avoided from delivering these schemes later than we assumed in our PR08 determination.

(d) DfT has cash-funded £140m of ring-fenced fund expenditure that we assumed would be RAB-funded within our PR08 determination. This comprises Access for All schemes from 2011 (£100m), National Stations Improvement Programme schemes from 2011 (£20m) and Access for All schemes from 2013 (£20m); and

(e) Network Rail has re-profiled £397m of enhancements expenditure due to programme deferrals.

2.30 The additional £1,602m of enhancement expenditure spent in the first four years of CP4 has been spent on enhancements projects that were not included in our PR08 determination, but which are being funded through the investment framework[32]. As such, there is no PR08 baseline to compare these schemes to. The £1,602m includes £810m of government sponsored schemes (principally Crossrail, Electrification and the Edinburgh-Glasgow Improvement Programme), £232m of Network Rail sponsored schemes to generate future income and £360m of schemes promoted by third parties (principally Evergreen 3 railway improvements in Oxfordshire).

2.31 Network Rail is confident that its enhancements programme is on track and, as stated in its 2013 delivery plan update (DP13), its current forecast is to deliver savings of £182m by the end of CP4. However, much of this work has not yet been completed and there are delivery risks, which could have large cost implications. For this reason, Network Rail does not consider that it is yet outperforming our PR08 determination on enhancements expenditure for the first four years of CP4 and therefore has not recorded it as financial outperformance in Financial Value Added (FVA). At the end of CP4 we will review and validate the company's assessment of financial performance relating to enhancements.

The effect of input prices on controllable opex, maintenance and renewals expenditure

2.32 It is important that we appropriately incentivise Network Rail to manage inflation efficiently and we incentivised Network Rail in CP4 to manage input price inflation by exposing it to movements in input prices. As a result, if input prices are lower than we expected Network Rail will retain the benefit of that variance and if input prices are higher it will bear the cost[33].

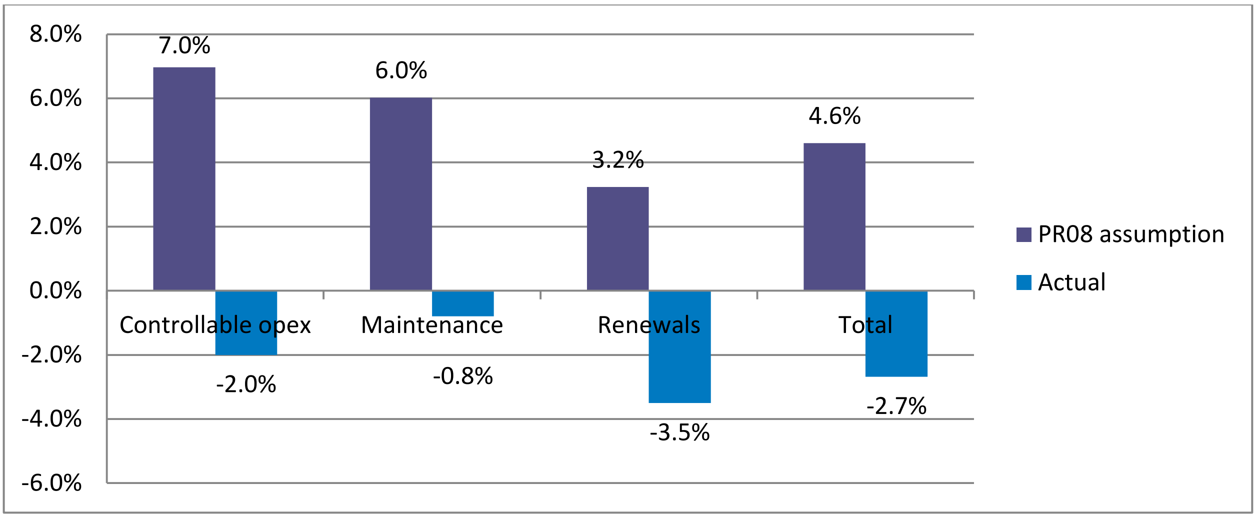
2.33 When we set our PR08 determination there was considerable uncertainty about the state of the economy. This meant that our inflation assumptions were also uncertain. In making our decisions about Network Rail's funding for CP4 we assumed that Network Rail would face 4.6 percentage points higher OM&R inflation than RPI by the end of 2012-13. Network Rail commissioned a study by LEK Consulting Limited (LEK) to examine the key input price trends which influence the company's OM&R expenditure and has subsequently updated and simplified LEK's PR08 input price model for Network Rail. As shown in Figure 2.6, Network Rail's OM&R input prices have increased by an estimated 2.7 percentage points lower

[32] £200m of this expenditure does not meet our RAB addition requirements.

[33] As part of this policy we also adjust Network Rail's RAB for movements in the Infrastructure Output Price Index (IOPI). Input price variations are possible modifiers that Network Rail's Remuneration Committee will consider at the end of CP4 in determining management's long-term bonuses.

than RPI in the first four years of CP4. This is 7.3 percentage points lower than we assumed in our PR08 determination and suggests that Network Rail may have substantially benefitted from lower than expected input price inflation for total OM&R in the control period to date. The reduction in the costs of Network Rail's inputs (labour and materials) will ultimately benefit Network Rail's customers and funders.

Figure 2.6: Cumulative actual and PR08 assumed OM&R input price variances to RPI



Source: Our own analysis of Network Rail's submissions to us.

2.34 The effect of input prices having risen by less than we assumed in our PR08 determination on Network Rail's cumulative OM&R efficiency improvements is summarised in Table 2.2. Network Rail has reported 15.8% cumulative OM&R efficiency improvements by 2012-13, which is 2.8 percentage points behind the 18.6% agreed OM&R efficiencies. However, in our PR08 determination we assumed that input prices would increase by 4.6% more than RPI, whereas Network Rail's analysis suggests that its input prices may have actually increased by 2.7% less than RPI. Removing the effect of input prices, Network Rail's underlying cumulative OM&R efficiency improvement is 13.1%, which is 10.1 percentage points lower than we assumed that Network Rail could achieve by 2012-13 (23.2%).

2.35 Care is required in interpreting these findings as Network Rail may have taken actions which could reduce the effects of input prices on its cost base, which would not be reflected in our analysis. For example, the setting of contract prices upfront would lock in input prices at a previously assumed rate. Also, there is uncertainty in measuring OM&R input price inflation due to the many activities that Network Rail undertakes to operate and maintain the rail infrastructure. As explained in the RAB section below, Network Rail's indicative RAB has been significantly adjusted down by £664m for movements in the infrastructure output price index (IOPI).

2.36 Given the importance of input prices and inflation to financial performance and efficiency, we have taken this into consideration in PR13 and we have simplified our approach. We will allocate input price risk to Network Rail but we will not allocate general inflation risk to Network Rail. In addition, in relation to renewals, we will not be applying the adjustment for IOPI. Also, as part of PR13, we commissioned a study by Credo Business Consulting LLP (Credo) to consider the efficiency of Network Rail's management of inflation. As a result of that study, we have made adjustments to our efficiency assumptions to reflect the impact on Network Rail's costs from an improvement in Network Rail's management of inflation.

Table 2.2: The effect of input prices on Network Rail's cumulative efficiency improvements

	Reported	Assumed	Variance
	(A)	(B)	(A-B)
Total OM&R			
Trajectory / reported efficiency	15.80%	18.60%	-2.80%
Effect of input prices (PR08 assumed and actual estimated) *	-2.70%	4.60%	-7.30%
Efficiency adjusted for estimated effect of movements in input prices	**13.10%**	**23.20%**	**-10.10%**
Controllable opex			
Trajectory / reported efficiency	8.60%	7.70%	0.90%
Effect of input prices (PR08 assumed and actual estimated) *	-2.00%	7.00%	-9.00%
Efficiency adjusted for estimated effect of movements in input prices	**6.60%**	**14.70%**	**-8.10%**
Maintenance			
Trajectory / reported efficiency	23.20%	21.50%	1.70%
Effect of input prices (PR08 assumed and actual estimated) *	-0.80%	6.00%	-6.80%
Efficiency adjusted for estimated effect of movements in input prices	**22.40%**	**27.50%**	**-5.10%**
Renewals			
Trajectory / reported efficiency	14.80%	20.80%	-6.00%
Effect of input prices (PR08 assumed and actual estimated) *	-3.50%	3.20%	-6.70%
Efficiency adjusted for estimated effect of movements in input prices	**11.30%**	**24.00%**	**-12.70%**

** A positive number implies input prices higher than RPI. A negative number implies input prices lower than RPI.*

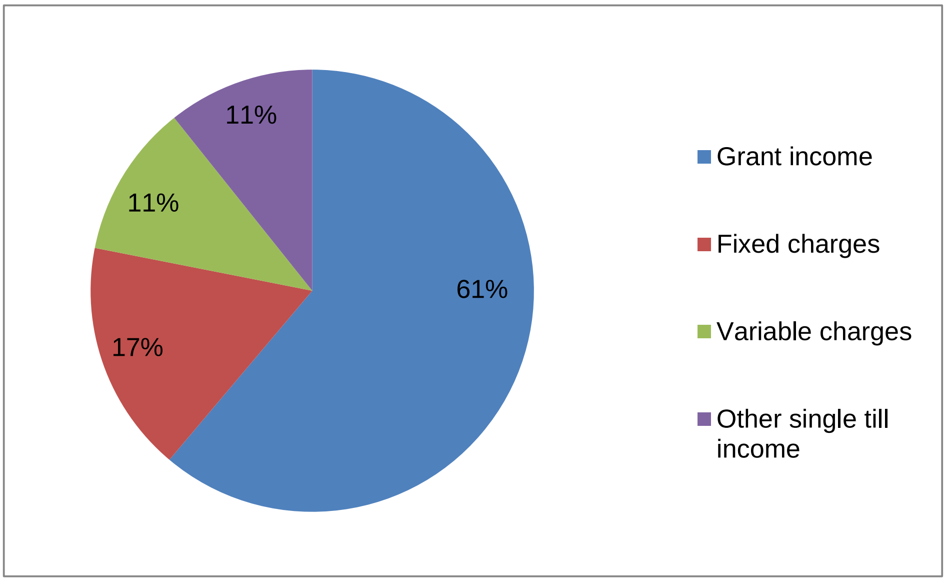
Source: PR08 determination, Network Rail's regulatory financial statements and submissions to us, and our own calculations.

Income

2.37 Network Rail receives income from three primary sources; government grants, track access charges and other single till income (OSTI).

2.38 As shown in Figure 2.7, 61% of Network Rail's income in 2012-13 was from grants paid by the DfT and Transport Scotland[34]. Franchised track access charges comprised 28% of income. These include fixed charges (17%) and variable charges (11%) paid by franchised train operators[35]. The remaining 11% of income was derived from other single till income, which includes income earned from Network Rail's stations, depots and property portfolio, and also from track access charges from freight and open access train operators.

Figure 2.7: Sources of Network Rail's income in 2012-13



Source: Network Rail's regulatory financial statements and our own calculations.

Table 2.3: Analysis of income (Great Britain)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Grant income	3,999	4,016	4,108	-17	-109
Fixed charges	1,109	1,099	913	10	196
Variable charges	732	715	727	17	5
Total franchised track access income	1,841	1,814	1,640	27	201
Other single till income	700	736	716	-36	-16
Total income	**6,540**	**6,566**	**6,464**	**-26**	**76**

Source: Network Rail's regulatory financial statements and our own calculations.

[34] Network Rail receives grants from the Department for Transport and Transport Scotland in return for delivering the strategic outputs specified in the two governments' High Level Output Specifications (HLOSs) for CP4. See http://www.rail-reg.gov.uk/server/show/conGlossary.100 for further details.

[35] Variable charges include traction electricity, schedule 4 income, variable usage charges and capacity charges.

2.39 As summarised in Table 2.3, total income in 2012-13 for Great Britain was £6,540m. This was £26m (0.4%) lower than we assumed in our PR08 determination, but £76m (1.2%) higher than 2011-12. These variances are due to a combination of factors:

(a) grant income was £17m (0.4%) lower than we assumed in our PR08 determination, largely as a result of differences in the inflation we assumed in the deed of grant with the DfT and Transport Scotland compared to that used to uplift the level of the grant income in our PR08 determination from 2006-07 prices. Grant income was £109m (2.7%) lower than the previous year (in line with the movement in the PR08 determination), with compensating amounts receivable through fixed charges;

(b) fixed charges were £10m (0.9%) higher than we assumed in our PR08 determination and £196m (21.5%) higher than 2011-12. The increase compared to 2011-12 was assessed by Network Rail as a result of additional facilities and services provided to train operating companies to generate extra revenue for Network Rail. Income is higher than 2011-12 in line with the increase in the PR08 determination;

(c) variable charges were £17m (2.4%) higher than we assumed in our PR08 determination and £5m (0.7%) higher than 2011-12 mostly attributed to the increased number of paths for franchised train operators to run more services and better availability of the network; and

(d) OSTI was £36m (4.9%) lower than we assumed in our PR08 determination and £16m (2.2%) lower than 2011-12. The sources of OSTI are shown in Table 2.4. The key variances were:

(i) higher stations, depot and other income than we assumed in our PR08 determination. Stations income was £28m (7.6%) higher than our PR08 determination due to better than expected business performance and the income from investment framework projects. Depots income was £10m (17.9%) higher than our PR08 determination due to incremental charges for additional facilities provided. Other income was £6m (66.7%) higher than our PR08 determination as a result of Network Rail including income from its subsidiary Network Rail (High Speed) Limited[36] within its regulatory financial statements in 2012-13 (the 2011-12 comparative includes income from years one, two and three of the control period, accounting for the £27m variance to the prior year); and

(ii) these positive variances were offset by property and freight income being lower than we assumed in our PR08 determination (£47m and £34m respectively). Network Rail has attributed these shortfalls to difficult market conditions.

[36] Network Rail receives income from its contract with HSL Ltd to operate and maintain the High Speed 1 railway through its subsidiary Network Rail (High Speed) Limited.

Table 2.4: Analysis of other single till income (Great Britain)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Property income	144	191	134	-47	10
Freight income	54	88	53	-34	1
Open access income	23	22	27	1	-4
Stations income	398	370	394	28	4
Depots income	66	56	66	10	-
Other	15	9	42	6	-27
Total other single till income	**700**	**736**	**716**	**-36**	**-16**

Source: Network Rail's regulatory financial statements and our own calculations.

Regulatory asset base

2.40 The RAB is a key building block for determining Network Rail's revenue requirement[37]. This section reviews indicative movements in the RAB in 2012-13.

2.41 As shown in Tables 2.5 and 2.6, Network Rail has reported a provisional value of the RAB at 31 March 2013 of £44,938m, which is £3,381m (7.0%) lower than we assumed in our PR08 determination. This variance is mostly due to Network Rail's decisions to re-phase capital expenditure (capex) to later in the control period resulting in the opening RAB in 2012-13 being lower (£3,121m) than our PR08 determination. Renewals and enhancements additions to the RAB (£2,317m and £1,853m respectively) are examined below. Also, Network Rail has included a £436m reduction to the RAB to reflect its non-delivery of required train punctuality and reliability requirements in the first four years of CP4. This represents the adjustment of £436m for England & Wales for 2012-13 but does not take into consideration the adjustment of £9m for Scotland from 2011-12 when Network Rail missed their punctuality and reliability requirements.

2.42 Our PR08 determination stated that where Network Rail has underspent on its capex programme but this is due to a non-delivery of required outputs, we will, at the beginning of CP5 reduce the level of the RAB to reflect this. Network Rail has not delivered required performance outputs for several areas throughout 2012-13. As examined in the 'Issues with Network Rail's reported financial performance' section below, Network Rail has estimated that the amount of PR08 funding that it received to deliver required outputs which have not been delivered in 2012-13 may be £436m. Network Rail has included this adjustment to the provisional value of the RAB at 31 March 2013 in its regulatory financial statements.

2.43 Under our RAB roll-forward policy, we will undertake a full assessment of the level of RAB to be rolled forward into the next control period at the end of CP4 and the RAB therefore remains provisional until the end of the control period.

[37] Our treatment of the regulatory asset base is set out in Chapter 15 of our PR08 determination and also in our regulatory accounting guidelines, available at http://www.rail-reg.gov.uk/upload/pdf/regulatory-accounting-guidelines-2013.pdf.

2.44 We will make a final assessment of the RAB in our annual efficiency and finance assessment in 2013-14.

Table 2.5: Analysis of RAB movements in 2012-13 (Great Britain)

£m	Actual 2012-13 (A)	PR08 determination (B)	Variance (A-B)
Opening RAB at 1 April 2012 (2011-12 prices)	**42,371**	**45,492**	**-3,121**
Additions to the RAB:			
Indexation for the year	1,263	1,355	-92
Renewals additions	2,317	2,295	22
Enhancements additions	1,853	1,607	246
Reductions to the RAB:			
Capex funded from the ring-fenced fund	-649	-649	-
Amortisation	-1,781	-1,781	-
Adjustment for missed regulatory outputs	-436	-	-436
Closing RAB at 31 March 2013 (2012-13 prices)	**44,938**	**48,319**	**-3,381**

Source: Network Rail's regulatory financial statements and our own calculations.

Table 2.6: Comparison of movements in the RAB (Great Britain)

£m, 2012-13 prices	Renewals	Enhancements
PR08 determination	**2,295**	**1,607**
Adjustments to PR08 assumed expenditure	10	-2
Adjusted PR08 determination	**2,305**	**1,605**
IOPI index adjustment	-179	-
Adjustments for efficient over/under spend*	177	-13
Deferrals to later in CP4	14	-195
Non-PR08 expenditure	-	456
Total additions to RAB in 2012-13	**2,317**	**1,853**

** Including 25% retention.*

Source: Network Rail's regulatory financial statements and our own calculations.

Renewals adjustments to the RAB

2.45 Network Rail has provisionally added £2,317m to the RAB for renewals expenditure in 2012-13, compared to our PR08 assumed addition of £2,295m. This variance is due to a number of factors:

(a) PR08 assumed expenditure would increase by £10m. This net increase takes into account additional civils expenditure relating to the UK government's fiscal stimulus package and additional funding for Seven Day Railway schemes. These increases were partly offset by a reallocation of some renewals expenditure to enhancement and maintenance expenditure, and the transfer of some stations in the Anglia operating route to the regional franchised train operator;

(b) Our PR08 determination requires renewals additions to the RAB to be adjusted for the effect of input price inflation through an IOPI adjustment[38]. The result of lower than assumed input prices was a £179m downward adjustment in 2012-13;

(c) Network Rail has included £177m of RAB addition for adjustments for efficient over/under spend mostly in relation to expenditure on its ORBIS project to improve asset management information and expenditure in relation to the relocation of further business functions to its national operations centre in Milton Keynes; and

(d) Network Rail has made a £14m adjustment for the catch-up of renewals expenditure that was deferred from earlier in the control period to 2012-13.

Enhancements adjustments to the RAB

2.46 Network Rail has provisionally added £1,853m to the RAB for enhancements expenditure in 2012-13, compared to our PR08 assumed addition of £1,607m. This variance of £246m is mostly due to additional expenditure of £456m on projects that were not funded in our PR08 determination (see 'Enhancements' section above) offset by a £195m adjustment for the deferral of enhancements expenditure to 2013-14. The £456m includes £42m of expenditure on Network Rail income generating schemes which are regulated under the investment framework. The £42m of expenditure is offset by £21m of income to be generated from these schemes in CP4. As part of our normal review of these schemes, we have asked Halcrow Group Limited (Halcrow), an independent reporter, to review a representative sample of these schemes. Halcrow's findings are still being finalised for 2012-13.

Financing

2.47 As Network Rail is a company limited by guarantee without shareholders, it is almost entirely dependent on issued debt and bank loans for its sources of funding. These borrowings are currently guaranteed under a financial indemnity mechanism (FIM) by the UK government[39].

2.48 Network Rail has issued debt in a number of currencies and with a range of maturities over recent years. Some of this debt was issued with a floating interest rate and some is exposed to movements in inflation (index-linked bonds). Network Rail uses financial derivatives to reduce its exposure to the foreign exchange and interest rate risks that arise from these financing activities. As shown in Table 2.7, there has been little change to Network Rail's mix of funding in 2012-13 compared to 2011-12.

2.49 Network Rail's net cash balance increased significantly in 2012-13. Network Rail has explained that new debt was issued towards the end of 2012-13 to benefit from favourable market conditions and that this

[38] See Chapter 15 of our PR08 determination for further details about how the IOPI adjustment is calculated.

[39] The UK government receives an 80 basis point (0.8%) fee in CP4 for providing this credit enhancement.

will be used to fund planned expenditure and refinancing in 2013-14. Network Rail has also increased its liquidity buffer to minimise refinancing risk which necessitates holding more cash balances.

Table 2.7: Sources of Network Rail's funding (Great Britain)

	As at 31 March 2013		As at 31 March 2012	
£m, nominal prices	**£m**	**% of total borrowing**	**£m**	**% of total borrowing**
Nominal borrowings (GBP)	8,595	27%	8,019	28%
Nominal borrowings (Foreign currency)	7,235	22%	5,635	20%
Total nominal borrowings	15,830	49%	13,654	48%
Index-linked borrowings (GBP)	16,258	51%	14,686	52%
Total regulatory borrowings	**32,088**	**100%**	**28,340**	**100%**
Uncleared cash items	-		-47	
Obligations under finance leases	-		1	
Net cash balances	-3,158		-1,805	
Regulatory net debt as at 31 March	**28,930**		**26,489**	

Source: Network Rail's regulatory financial statements and our own calculations.

Movements in net debt

2.50 Table 2.8 shows the movements in Network Rail's net debt in 2012-13. Closing net debt was £28,930m, which was £1,405m (4.6%) lower than we assumed in our PR08 determination. This variance was primarily due to the company starting the year with £2,315m lower debt than we had assumed. The in-year variances in income, expenditure and financing costs are examined in other sections of this report. The £50m variance in 'other' is due to a decrease in Network Rail's working capital[40].

2.51 Network Rail issued £4,751m of nominal and index-linked debt in 2012-13 to fund net expenditure, increase its cash balances to fund anticipated expenditure in 2013-14 and refinance debt that matured.

2.52 Also, accretion on the capital component of index-linked bonds increased by £485m[41] in 2012-13.

[40] Movements in working capital arise due to timing differences between the recording of income or expenditure on an accruals basis and the actual receipt or payment of the cash.

[41] The capital component of these bonds increases (accretes) with the retail price index (RPI).

Table 2.8: Analysis of the movements in net debt (Great Britain)

£m, nominal prices	Actual 2012-13	PR08 determination	Variance
	(A)	(B)	(A-B)
Regulatory net debt at 1 April 2012	**26,489**	**28,804**	**-2,315**
Total income	-6,540	-6,566	26
Total expenditure	7,499	6,463	1,036
Financing costs	1,496	1,619	-123
Corporation tax	-	14	-14
Rebates	35	-	35
Other	-49	1	-50
Regulatory net debt at 31 March 2013	**28,930**	**30,335**	**-1,405**
Movement in the year	**2,441**	**1,531**	**910**
Represented by:			
New debt issued	4,751		
Index-linked debt inflation (capital accretion)	485		
Debt repaid	-1,204		
Increase in net cash balances	-1,353		
Other	-238		

Source: Network Rail's regulatory financial statements and our own calculations.

2.53 Table 2.9 shows the maturity profile of Network Rail's gross debt at 31 March 2013 compared to 31 March 2012.

Table 2.9: Maturity profile of Network Rail's gross debt (Great Britain)

Maturity of debts	2013 £m	2012 £m
On demand or within one year	1,004	1,156
Due within one to two years	2,508	3,727
Due within two to five years	5,527	4,711
Due in more than five years	21,319	19,491
Total gross debt (as per statutory accounts)	**30,358**	**29,085**

Source: Network Rail's submission to us.

Financing costs

2.54 As summarised in Table 2.10, Network Rail financing costs in 2012-13 were £123m lower than we assumed in our PR08 determination. This variance was due to a number of factors including:

a) Network Rail had lower levels of debt during the year resulting in less interest payable; and

b) Network Rail has not issued unsupported debt in CP4 which would have incurred a higher rate of interest,

this is offset by:

c) inflation accretion on index-linked debt was higher due to the greater proportion of index-linked debt issued than assumed in our PR08 determination and higher inflation than we assumed in our PR08 determination; and

d) FIM payments were higher than we assumed due to Network Rail having not issued unsupported debt[42].

Table 2.10: Summary of financing costs (Great Britain)

£m, nominal prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 determination variance
	(A)	(B)	(C)	(B-A)
Interest on nominal debt - FIM covered	584	709	564	125
Interest on IL debt - FIM covered	209	213	185	4
FIM fee	218	210	200	-8
Total interest costs	**1,011**	**1,132**	**949**	**121**
Accretion on IL debt - FIM covered	485	332	521	-153
Interest on nominal debt - unsupported	-	155	-	155
Total financing costs	**1,496**	**1,619**	**1,470**	**123**

Source: Network Rail's regulatory financial statements, Network Rail submissions to us and our own calculations.

2.55 Table 2.11 summarises the average interest rates on Network Rail's debt in 2012-13 in comparison to our PR08 determination and 2011-12[43].

Table 2.11: Summary of average interest rates

£m, nominal prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 determination variance
	(A)	(B)	(C)	(B-A)
Average interest rate on nominal debt - FIM covered	4.8%	5.0%	5.2%	0.2%
Average interest rate on nominal debt - unsupported	n/a	6.7%	n/a	n/a
Average interest rate on IL debt - FIM covered	1.4%	1.8%	1.3%	0.4%
Accretion on IL debt - FIM covered	3.0%	2.8%	3.9%	-0.2%
FIM fee rate	0.8%	0.8%	0.8%	0.0%

Source: Network Rail's regulatory financial statements, Network Rail submissions to us and our own calculations.

[42] We expected Network Rail to issue unsupported debt in CP4, i.e. debt issued without the guarantee of the UK government's financial indemnity mechanism. However, given the economic conditions and volatility in the financial markets Network Rail has not issued any unsupported debt.

[43] Network Rail raises debt on a Great Britain basis, so these average interest rates also apply for England & Wales and Scotland.

Financial indicators

2.56 In CP4 we use two primary financial indicators, the adjusted interest cover ratio (AICR) and the net debt to RAB ratio, to help assess Network Rail's ability to service its debt obligations and raise additional funds. These financial indicators are also used by lenders and credit rating agencies. The AICR is a measure of Network Rail's ability to cover its interest costs and the net debt to RAB ratio is used to measure the value of Network Rail's net debt against the value of its RAB, i.e. Network Rail's notional gearing[44].

2.57 One of the trigger points in the access charges contracts for Network Rail's access review to be potentially re-opened is the AICR. Network Rail's network licence also places limits on the company's overall level of net debt to RAB ratio.

Table 2.12: Summary of the key financial indicators (Great Britain)

	Actual 2012-13	PR08 determination	Actual 2011-12
Adjusted interest cover ratio (AICR)	2.04	1.68	2.15
Net debt/RAB	64.4%	63.2%	62.5%

Source: Network Rail's regulatory financial statements and Network Rail submissions to us.

2.58 The actual AICR is above the 1.40 trigger level in the access charges contracts, which means that Network Rail is above the threshold level for a re-opener to be considered for this issue. It is higher than we assumed in our PR08 determination but lower than in 2011-12 largely due to the impact of the re-phasing of capital expenditure on Network Rail's borrowing levels within CP4.

2.59 The net debt to RAB ratio at the end of 2012-13 was 64.4%. This was 1.2 percentage points higher (worse) than our PR08 determination of 63.2% largely due to the lower than expected level of capital expenditure in the control period to date and Network Rail's provisional RAB adjustment of £436m for missed regulatory outputs. The ratio is within the 75.0% limit in Network Rail's network licence for 2012-13[45].

Issues with Network Rail's reported financial performance

2.60 As part as our role as regulator of Network Rail, we need to assess whether Network Rail has delivered the required outputs that we set out in our PR08 determination. We have reviewed the performance of Network Rail in delivering the outputs and we have assessed that the delivery of outputs in the control period to date is not consistent with the requirements set out in our PR08 determination. We have adjusted Network Rail's reported FVA to take account of Network Rail not delivering the levels of train

[44] The definitions of each financial indicator are set out in our RAGs.

[45] Table 3.1 of the network licence granted to Network Rail Infrastructure Limited states the financial indebtedness limits for each year of CP4.

punctuality and reliability that it was required to deliver as part of our PR08 determination. We have made additional adjustments for our concerns that Network Rail may not have undertaken sufficient renewals work in CP4 to maintain the long term sustainability of its assets (and as a result may need to spend more in the future) and concerns about the quality of evidence supporting claimed savings in relation to some renewals and maintenance activities. We have further adjusted FVA to take account of items which were not consistent with our PR08 determination, including that Network Rail should not claim as outperformance financial costs saved as a result of delaying capital expenditure within CP4. Table 2.13 summarises the adjustments.

2.61 In identifying the methodology used to calculate our adjustments to FVA we have generally used a cost avoided approach, to be consistent with Network Rail's FVA approach, instead of using a value based approach. An example of this issue is the treatment of investment in IT systems. Under FVA, if the cost of this investment was higher than our PR08 determination it would be treated as negative FVA. However, the investment could add value to the business and would be valued differently if the assessment had taken a value based approach. As the FVA is a relatively simple calculation of value added, for our adjustments to be appropriate, they need to be calculated on a similar basis to the FVA Network Rail has reported, i.e. we have generally used the cost avoided approach.

Table 2.13: Our adjustment to financial performance in the first four years of CP4

£m, 2012-13 prices	Reported FVA	Our adjust-ments	Our assess-ment of reported FVA
Network Rail's reported FVA for renewals (excluding civils)	150		
Network Rail's reported FVA for maintenance	46		
Total Network Rail's reported FVA for renewals and maintenance			196
Our adjustments:			
(a) Non-delivery of train punctuality and reliability requirements		-445	
(b) Sustainability of renewal of drainage and fencing assets		-100	
(c) Slippage of renewals work		-388	
(d) Robustness of operational property and plant and machinery efficiencies		-45	
(e) Double-count within the above adjustments		400	
Total renewal and maintenance adjustments			-578
Our assessment of reported FVA for renewals and maintenance			**-382**
Network Rail's reported FVA for interest	702		702
(f) Avoided interest costs that do not meet our recognition criteria		-164	-164
Our assessment of reported FVA for interest			**538**
Other Adjustments			
(g) Sustainability of renewal of civils assets		-100	**-100**
Network Rail's reported FVA for other categories	97		**97**
Financial outperformance of our PR08 determination	**995**	**-842**	**153**

2.62 The following section outlines the reasons why we have made the adjustments and the methodology for calculating the adjustments.

(a) Network Rail's non-delivery of train punctuality and reliability outputs

2.63 As explained in our PR08 determination, our framework for assessing Network Rail's financial performance involves determining whether the company has delivered its required train performance targets for each of the five years within CP4. Where it has not done this, we assess the extent to which any underspend is related to the company's non-delivery of the required outputs. There are punctuality and cancellation requirements (PPM and CaSL)[46] for the long distance, London & South East, regional and Scotland passenger sectors, as well as delay minute targets for the passenger and the freight sectors. There are also targets for minimising disruption to passengers and freight from planned engineering works.

[46] The Public Performance Measure (PPM) and Cancellations and Significant Lateness (CaSL) measure.

2.64 As documented in our 2012-13 Q4 Monitor[47] Network Rail's performance against a number of these requirements was not as good as expected in 2012-13. In particular, the long distance, London & South East and regional sectors missed their 2012-13 PPM targets by 4.5%, 1.7%, and 0.8% respectively (in percentage points). The long distance, London & South East and regional sectors also missed their 2012-13 CaSL targets by 0.9%, 0.5% and 0.2% respectively. Freight ended the year at 3.47 delay minutes per 100kms which was 13.8% worse than the regulatory target[48].

2.65 Based on analysis that Network Rail undertook to develop DP09 for CP4[49] Network Rail has, at our request, estimated that the amount of PR08 funding that it received for required outputs which have not been delivered for England & Wales in 2012-13 as £436m[50]. This follows the same approach that was used to calculate the £172m adjustment for this issue in 2011-12. However, as agreed in relation to the methodology in the prior year, the adjustment for missed punctuality and reliability requirements would be carried forward, even if performance improved. Therefore, the adjustment of £9m in the prior year for Scotland is included in our total adjustment of £445m for Great Britain for the control period to date.

2.66 Network Rail has argued that its non-delivery of train punctuality and reliability requirements in 2012-13 was at least in part due to exceptional weather and other factors largely beyond its control, such as cable theft. Network Rail therefore considers that our approach overstates the costs that it may have avoided. However, in accepting our PR08 determination Network Rail agreed to bear the financial risks associated with delivering its required outputs, including for example the financial consequences of both good and bad weather.

2.67 Provided Network Rail delivers its required outputs, it is entitled to retain the benefit of financial outperformance (for example, where income is higher and/or expenditure is lower in aggregate than assumed in our PR08 determination). Likewise, Network Rail bears the consequences of financial underperformance. Included in FVA are many differences both positive and negative, between actual income and expenditure and our determination, for issues that Network Rail is at risk for, e.g. weather and we need to take an approach to these issues that is consistent with our PR08 determination. We have therefore not reduced our adjustment for the effect of weather.

2.68 It is important to note that this does not mean we expected Network Rail to keep the network operational regardless of any extreme weather event or other external factor. However, we do expect it to manage those risks appropriately and to bear the financial consequences of its decisions.

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[47] This is available at http://www.rail-reg.gov.uk/upload/pdf/network_rail_monitor_1213q4.pdf.

[48] As measured on a moving annual average (MAA) basis. The freight regulated target is expressed as delay per 100 train km to allow for any change in freight mileage.

[49] This is available at http://www.networkrail.co.uk/browse20documentsStrategicBusinessPlanDelivery20Plan2009Performance20Delivery20Plan.pdf.

[50] Network Rail considers that this amount could be reduced by £115m due to the impact of weather and external factors such as cable theft.

2.69 Given the diverse nature of the activities that Network Rail undertakes to operate and maintain the national rail infrastructure it is difficult to establish a clear linkage between expenditure and performance. However, we consider that Network Rail has adopted a reasonable approach in the circumstances to estimate the PR08 funding that it received for required outputs that it has not delivered in the first four years of CP4. Should it be necessary, we intend to use the same methodology to assess underspend associated with any further deterioration in required performance in the final year of CP4.

(b) & (g) Sustainability of the renewal of civils, drainage and fencing assets

2.70 A key test in our assessment of Network Rail's financial performance is whether the company has maintained the serviceability and sustainability of the network in the short, medium and long term. We placed the burden of proof on Network Rail to demonstrate that any claimed savings will not have implications for the long-term condition and serviceability of the network and Network Rail's ability to deliver its outputs in the future[51].

2.71 Network Rail entered CP4 with a poor understanding of the condition of its bridges, tunnels and other major structures (these assets are collectively known as civils) and the amount of work that would be required to maintain these assets on a sustainable basis. Network Rail's DP09 included a significantly lower amount of planned renewals expenditure on civils than the amount proposed in its CP4 SBP. This position was not helped by Network Rail having poorly defined measures of civils renewals activity and related unit costs. Despite improvements to Network Rail's understanding of its civil structures in CP4, in 2011-12, we considered that there was uncertainty about the sustainability of Network Rail's programme of renewals work on these assets in CP4. We agreed with Network Rail last year that renewal of these assets should be excluded from its reporting of financial performance[52].

2.72 Network Rail published its SBP for control period 5 (CP5) in January 2013. Our review of Network Rail's PR13 SBP for CP5, provided us with new evidence about the sustainability of Network Rail's management of its civils, drainage and fencing assets in CP4.

2.73 In its plan Network Rail identified that it felt it needed to increase spend on civils in CP5 by £595m compared to CP4[53]. This new evidence has made it clear that Network Rail has not undertaken sufficient work to manage these assets on a sustainable basis in CP4. Network Rail is now doing more work than it otherwise would have done as a result of the fiscal stimulus package of £250m. On the basis of this new evidence, we consider that Network Rail has not managed these assets sustainably in CP4, i.e. money has

[51] In particular, if demand on the network were to remain steady, would application of the same approach to asset management continue to deliver the currently specified outputs indefinitely?

[52] This matter is explained in our annual efficiency and finance assessment 2011-12, which is available at http://www.rail-reg.gov.uk/upload/pdf/nr_annual_asessment_2011-12.pdf.

[53] Network Rail's PR13 SBP forecast civils spend in CP5 of £2,643m compared to £2,048m in CP4. This is an increase of £595m. In order to calculate this increase on a like for like basis, we have adjusted Network Rail's forecast of civils spend in CP4 of £2,098m per Network Rail's 2013 delivery plan by adding £97m to correct an error in Network Rail's 2013 delivery plan and by deducting £147m for CEFA expenditure as that is included in Network Rail's PR13 SBP as maintenance spend.

not been spent on renewing these assets in CP4 that should have been. This means that the conclusion that we reached on this matter in 2011-12 is no longer appropriate.

Valuing an adjustment to financial performance

2.74 In valuing the adjustment for civils, we have considered what Network Rail could have reasonably done once issues regarding sustainability were understood in CP4, in an 'ideal practical world timeframe'[54].

2.75 The difference between Network Rail's post-efficient CP5 proposed spend and the forecast CP4 spend on a like for like basis is approximately £595m. This implies that not enough money has been spent in CP4 (potentially up to £595m) to maintain the assets sustainably and in principle this is the amount which we believe we should adjust Network Rail's FVA to reflect the non-delivery of a sustainable asset approach on civils (on a cost-avoided basis).

2.76 However, in valuing the adjustment for civils, we have taken into account that Network Rail has done a lot to improve its understanding of the civils asset base during CP4, culminating in November 2012 with new asset policies, supported by improved modelling and asset information. Nevertheless, we consider that these development activities could have advanced more rapidly, with new asset policies being finalised at least a year earlier, in November 2011. Work on the assets could then have ramped up towards the sustainable level over, at least, the last two years of CP4.

2.77 In discussion with Network Rail, we have concluded that they could have delivered a higher volume of work efficiently in this time frame, and we have assessed the amount as £350m. The £350m is the assessment of the costs avoided for the whole of CP4. The £350m assumes that approximately half-way through the control period Network Rail could have started spending additional money on civils despite its CP4 SBP including additional spend[55]. Network Rail is now doing more work than it otherwise would have done as a result of the fiscal stimulus package of £250m. We have considered what Network Rail could have reasonably delivered in CP4 and we have estimated that Network Rail should have undertaken an additional £100m of renewals work in CP4 to manage these assets on a sustainable basis. We have adjusted Network Rail's financial performance down by £100m to take account of this avoided expenditure[56].

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[54] 'Ideal practical world timeframe' indicates that if the appropriate information had been available and the processes had moved forward efficiently, this is the timeframe that the revised civils asset policy could have been delivered from the start of CP4.

[55] In its PR08 SBP, Network Rail wanted to spend more money during CP4 (CP4 SBP of £2,417m compared to £1,950m in DP09). Network Rail's forecast spend for the whole of CP4 in its DP13 is £2,195m (including the fiscal stimulus spend of £250m and corrected for the £97m of expenditure excluded from the DP13 forecast).

[56] Network Rail has accepted that it is appropriate to exclude civils renewal from its reporting of financial performance due to uncertainty about the level of work required to maintain these assets on a sustainable basis. However, Network Rail does not agree that a further adjustment to financial performance is now appropriate because in its view we accepted Network Rail's approach to civils renewals in its delivery plan for CP4. However, PR08 is an output based determination, so we do not approve specific levels of work on its assets. Instead we make an assumption of the work needed for Network Rail to meet its outputs. Network Rail's delivery plan sets out the outputs it will deliver but does not overwrite our determination, e.g. the financial

2.78 In relation to drainage and fencing, we have applied the same overall approach that we have for civils, i.e. we have identified the costs that Network Rail has avoided and then assessed what would have been reasonable for it to have delivered in CP4. We agree with Network Rail that it did not have sufficient information or appropriate asset policies for drainage and fencing at the start of CP4, to deliver a sustainable asset base by the end of CP4. This means that it requires some time in CP5 to catch up to a sustainable level of spend. Therefore, some of its proposed spend in CP5 is a catch up of the CP4 underspend, and Network Rail could have done more in CP4. Our assessment of the additional work that it should have done in CP4 is £100m. This amount is an assessment of the costs avoided for the whole of CP4.

2.79 Therefore, our view is that it would be appropriate for Network Rail's financial performance to be adjusted down by £200m for the amount of renewals work on civils, drainage and fencing assets that has not been done in CP4 that should have been.

(c) Slippage of renewals volumes in CP4

2.80 We refer to lower volumes of activity undertaken than envisaged at the time of our price review as scope reductions. In principle, Network Rail can recognise scope reductions as financial outperformance, provided it can provide appropriate evidence to show that the reductions are efficient and has not impacted on the long-term asset condition and serviceability of the network.

2.81 Arup's review of the Regulatory Financial Statements for 2012-13, identified a potential adjustment for slippage of renewal volumes affecting the long-term sustainability of the network across the renewal categories of track and electrification. This is a similar position to last year, where in our 2011-12 annual assessment, we considered that there was a risk that Network Rail would not be able to deliver in the last two years of CP4, the backlog of work that had built up by the end of 2011-12. However, last year we did not have sufficient evidence to make an adjustment to Network Rail's financial performance for this issue. Following our review of Network Rail's PR13 SBP, Arup's 2012-13 report and Network Rail's own 2013-14 forecasts, there is now sufficient evidence available to demonstrate that Network Rail will not deliver all the renewals volumes that it was forecasting it would deliver in CP4.

2.82 We reviewed Network Rail's latest asset policies (including track, signalling, operational property, telecoms and civils) in early 2010 and wrote to the company in June 2010 to set out our position. We concluded that the policies appeared to be robust[57] and that, with the exception of civils, they appeared to

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assumptions and the regulatory framework are unchanged. We accepted Network Rail's changes to the delivery of some of its outputs in DP09, e.g. to enhancement milestones but the regulatory framework and the financial settlement remains as set out in our PR08 determination.

[57] Robustness has been defined as - is it reasonable to believe that the policy can deliver the required CP4 outputs, for England & Wales and for Scotland? Note that as Network Rail is committed to deliver the outputs, this test is relatively weak; a policy will pass the test unless there are strong grounds to believe that it would not deliver the outputs. In practice, if implementing the policy is not delivering them, Network Rail will have to take remedial action.

be sustainable[58]. We made clear that we would monitor activity levels and asset condition as indicators of whether Network Rail was delivering in line with its asset policies, and that should either fall materially below its projections, Network Rail would be required to explain how this is consistent with meeting its asset stewardship licence obligations. Network Rail set out the projections of activity levels and asset condition indicators that are consistent with these asset policies in DP10. Where actual activity and condition is materially below these projections we consider that Network Rail is not demonstrating that it has applied a sustainable asset policy. Network Rail has not provided appropriate evidence that this is not the case, therefore, we have assessed that these assets have not been managed on a sustainable basis.

2.83 Network Rail's asset policies describe its current understanding of the most efficient way to manage its asset base. This understanding is not fully developed and will be improved as its evaluation of whole life cost and long-term sustainability is improved. The volumes of work types required to sustain the assets are determined by applying the asset policies to the asset base, taking into account asset condition, and these volumes of work were included in DP10. If the volume of work delivered falls materially below the level shown in DP10, the implication is that Network Rail's asset base is not being sustainably maintained and renewed for the long-term[59].

2.84 Following the receipt of Arup's report, we have carried out further analysis to assess the amount of the potential deferral for CP4, based on Network Rail's quarter one forecast of 2013-14. We have also identified that within the signalling renewal asset category, there is also likely to be a material deferral of level crossing volumes into CP5 which was not assessed in Arup's report. This is due to the latest re-forecast information now available to us, which was not available at the time of the collation of the data by Arup. We think that the slippage of these volumes has resulted in an increased risk to the network, as the network is not in as good a condition as it should be. Our adjustment of £388m values the impact of the slippage of renewal volumes on the network, based on the costs that have been avoided by Network Rail.

2.85 Network Rail does not agree that an adjustment to financial performance is appropriate for this issue as it has not claimed this underspend as outperformance and because we have not shown that the slippage will affect the long-term sustainability of the network. However, the onus is on Network Rail to demonstrate that it is not inefficiently deferring work[60]. Despite our requests Network Rail has not provided

[58] Sustainability has been defined as - if demand on the network were to remain steady, would application of the same policy continue to deliver the outputs specified for the final year of CP4 indefinitely? This is a stronger test to ensure that, in managing within CP4 funding, Network Rail is making genuine efficiencies and is not deferring essential work at the cost of inefficiently higher expenditure in later control periods.

[59] Network Rail might decide that less work is required than it previously thought because its assets are in a better condition than expected, or because a more efficient whole life approach has been identified and incorporated into a revised asset policy. The onus would be on Network Rail to demonstrate that it is delivering lower volumes of work than planned for these reasons and not simply putting work off for the future.

[60] See for example our June 2010 letter to Network Rail on asset policies. This is available at http://www.rail-reg.gov.uk/upload/pdf/asset-policies-conclusions-010610.pdf.

appropriate evidence to either Arup, or to us to show that its non-delivery of renewals has not affected the long term sustainability of the network.

Valuing an adjustment to financial performance

2.86 We have assessed this adjustment to be £388m in CP4 across three renewal categories: plain line track, level crossings and electrification.

2.87 In relation to plain line track, we have assessed the likely volume under-delivery against DP10 as 503km of track, which equates to 5.3% of Network Rail's DP10 forecast. In calculating the unit costs to be used to value this slippage of renewals, we have used the average unit cost for the control period, as implied by the total costs and total volumes for CP4 as set out in DP13, which we think is the most up-to-date forecast with consistent volumes and costs. This results in an adjustment for these assets of £138m.

2.88 In relation to level crossings, we have assessed the likely volume under-delivery against DP10 as 61 level crossings, which equates to 26% of Network Rail's DP10 forecast. Consistent with plain line track, we have used the average unit cost for the control period as implied by the total costs and total volumes for CP4 as set out in DP13 to value the slippage of these volumes. This results in an adjustment for these assets of £97m.

2.89 In relation to electrification, we have assessed the five key categories of renewal work, which represents 45% of the planned spend in CP4.

2.90 We have assessed that slippage of volumes across electrification assets compared to DP10 in the following five electrification categories: campaign changes (42% of undelivered volume compared to the planned DP10 volume); conductor rail (61%); DC HV switch gear (41%); DC HV cables (43%) and DC LV switch gear (34%). This implies a £153m deferral from CP4 (based on these categories).

2.91 Network Rail needs to deliver a significantly greater volume of renewals work in 2013-14 than it has delivered in earlier years of CP4. We will review this matter again next year to take account of the level of renewal work achieved in 2013-14.

(d) Robustness of operational property and plant and machinery efficiencies

2.92 Arup has concluded in its report on Network Rail's 2012-13 Regulatory Financial Statements that a significant proportion of Network Rail's reported efficiencies in renewals (36% of total claimed efficiency in renewals) may not be robust in relation to operational property (£100m) and plant and machinery (£28m). Arup has concluded that the efficiencies claimed were not supported by sufficient evidence for it to form a view with regard to the validity of Network Rail's claimed savings[61]. In addition, Network Rail has been unable to demonstrate that the volume of operational property and plant and machinery work delivered was

[61] Arup's report is available at http://www.rail-reg.gov.uk/upload/pdf/arup-nr-regulatory-accounts-review-2013.pdf.

in line with what is needed to sustainably manage its asset base in accordance with our PR08 determination.

Valuing an adjustment to financial performance

2.93 Network Rail has provided some high-level evidence around positive management actions for these asset categories, but this has not been sufficient to satisfy the independent reporter. We are aware of the difficulty that Network Rail faces in proving that cost reductions are genuine savings for renewals categories such as operational property and plant and machinery where it does not have measures of the volume of work done and therefore has no way of measuring unit costs. However we consider that a best practice operator would need to know for its own purposes whether it was spending its money efficiently in these areas, and would set up systems capable of demonstrating the savings.

2.94 Although Network Rail has provided some high-level evidence around positive management actions for these asset categories, it has not been sufficient to satisfy the independent reporter and therefore we have reduced Network Rail’s claimed efficiencies, so that we only recognise the level of efficiency that we assumed in our PR08 determination (19.4%). This results in an adjustment to financial performance of £41.1m in 2012-13 for operational property and £3.7m for plant and machinery. These adjustments for unsupported efficiencies in 2012-13 are not considered to be a double-count of the train punctuality and reliability adjustment (£445m), as these categories of renewals are not likely to significantly impact operational performance (PPM and CaSL).

(e) Double-count within the above adjustments

2.95 We recognise that adjusting for each of the above matters in isolation risks overstating our assessment of the total adjustments to Network Rail’s reported FVA. This is because there may be common underlying factors between different adjustments, which could lead to double-counting. For example, had Network Rail undertaken additional renewals work in CP4 than it has done, it is likely that this work would also have had a beneficial impact on Network Rail’s delivery of train punctuality and reliability targets.

2.96 The diverse nature of the activities that Network Rail undertakes to operate and maintain the national rail infrastructure means that it is difficult to establish a clear linkage between Network Rail’s expenditure and its operational performance. It is therefore difficult to quantify the amount of potential double-count between each of the separate adjustments to Network Rail’s financial performance. We have worked with Network Rail to estimate an adjustment of £400m based on the proportion of the output adjustment that may have been due to renewals underspend.

Valuing an adjustment to financial performance

2.97 In arriving at the adjustment of £400m to eliminate any potential double-count, we have taken into consideration:

(a) the train reliability and performance adjustment of £445m, where we have a defined loss (in this case loss of performance) but where it is difficult to estimate the exact cost of that loss; and

(b) the slippage adjustment of £388m, where we have a defined cost but where it is difficult to estimate the exact loss.

Given the similarity in value of these adjustments (£445m and £388m), we consider that the value of £400m for double-count is appropriate.

2.98 The methodology for calculating this adjustment is relatively simple and subjective as it is a difficult issue to estimate. Therefore, we will review the calculation in the 2013-14 assessment of Network Rail's financial performance.

(f) Avoided interest costs that do not meet our RAB roll-forward criteria

2.99 Network Rail has reported £702m of financial outperformance for interest costs. This includes £164m of interest costs avoided as a result of deferring renewals and enhancements expenditure compared to the profile we assumed in our PR08 determination for CP4. Our PR08 determination stipulated that Network Rail should not bear the cost of bringing work forward within CP4, and that it should not benefit from deferring work within CP4. In this way, we wanted Network Rail to focus on doing what it needed to do in the control period, taking decisions on when to do the work to ensure optimal delivery rather than because of the financial implications of the timing of work within the period.

Valuing an adjustment to financial performance

2.100 In accordance with the PR08 determination we have made a £164m adjustment to our assessment of Network Rail's financial performance, which is based on the analysis that has been provided by Network Rail. Network Rail disagrees with the adjustment. However, by including the £164m in its statement of financial performance for this issue, Network Rail is benefiting from deferring work within the control period which is contrary to the PR08 determination.

2.101 Network Rail has issued a substantial amount of index-linked debt in CP4. Index-linked debt incurs both interest and accretion costs. Accretion costs are the costs as a result of the change in the value of the bond due to inflation. The repayment of these bonds is linked to the RPI. As the RPI has been higher in CP4 than we assumed in our PR08 determination, the accretion cost on index-linked bonds in the control period to date is £947m more than assumed in our PR08 determination. This means that Network Rail will need to pay its bond-holders substantially more when these bonds mature (in typically 20 to 30 years' time).

2.102 Network Rail has not included the £947m of additional accretion in its calculation of FVA as it does not consider that general inflation is controllable. This means FVA is £947m higher than it would otherwise have been. It is difficult to assess how accretion should be treated in our assessment as it is controllable by Network Rail at the time it issues debt, for example, a non-index linked bond could have been issued instead, which is not linked to inflation. However, once an index-linked bond has been issued, the accretion is not as controllable, although the debt can still be refinanced. We have not adjusted our assessment for this matter. This is because we think it is better to consider this issue together with Network Rail's treatment of input price inflation (which is included in reported FVA) in our 2013-14 annual efficiency and finance assessment, when information for the entire control period will be available.

Robustness of maintenance efficiencies

2.103 Forty percent of Network Rail's reported OM&R efficiency improvements relate to its maintenance of the railway infrastructure. However, Network Rail has been unable to demonstrate that the volume of maintenance delivered was in line with the delivery of a robust and sustainable asset base. Moreover, these maintenance efficiencies have been claimed against a backdrop of train punctuality and reliability underperformance, which is a reflection of underlying asset performance. In our view this indicates primarily a maintenance shortfall, although the renewals shortfall will also be a factor by increasing the maintenance requirement. It is therefore not clear that the maintenance savings that Network Rail has reported are efficiency improvements rather than a reduction in output compared to the outputs it was required to deliver in CP4.

2.104 In its assessment of Network Rail's progress against the Asset Management Improvement Program (AMIP) targets[62] as at January 2013, the independent reporter Asset Management Consulting Limited (AMCL) noted:

> "Network Rail's current maintenance requirements for its diverse asset base are based on historical approaches that have evolved over many years. Network Rail notes (NRSBP-SBP39) that the majority of changes that have been applied to the current maintenance requirements are the result of accidents, incidents and new technology. This is not uncommon in large infrastructure managers across a variety of industry sectors but falls some way short of current best and even good practice."

2.105 Network Rail is embarking on a programme to optimise its maintenance regimes, but as AMCL go on to say, the real efficiencies are some way off:

> "Network Rail's progressively developed approach should assure that appropriate and justified maintenance tasks are developed over time, prior to the establishment of best practice cost-risk based justifications of maintenance intervals and potential efficiencies for key assets. However, the true efficiencies of risk-based maintenance, gained via quantified cost-risk trade-offs to establish justified maintenance intervention frequencies, are not planned to be realised until CP6."

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[62] The AMIP targets are outlined in the table titled 'Asset management excellence model' in the Success in CP4 letter, available at http://www.rail-reg.gov.uk/upload/pdf/nr-cp4-success-010311.pdf.

2.106 As part of its review of the regulatory financial statements, Arup concluded that a proportion (£35m) of Network Rail's reported maintenance efficiencies may not be robust. Arup considers that Network Rail has not been able to demonstrate that there is no linkage between reductions in expenditure for certain categories of maintenance activity and the non-delivery of required performance outputs.

2.107 As identified above we have estimated that Network Rail avoided costs of £445m for required train punctuality and reliability outputs which have not been delivered in the control period to date. Some of this avoided expenditure is likely to be in relation to maintenance activities, so if we separately adjusted for concerns about maintenance savings we may be partly double-counting the £445m train punctuality and reliability output adjustment. Therefore, we consider there should be no further adjustment for our concerns about claimed maintenance savings in addition to the £445m output adjustment discussed above.

3. Efficiency Benefit Sharing Mechanism (EBSM)

Introduction

3.1 We established the Efficiency Benefit Sharing Mechanism (EBSM) in our PR08 determination to incentivise train and freight operating companies to support Network Rail's efforts to outperform our PR08 determination. The EBSM is designed to operate at the national level with separate schemes for England & Wales and Scotland.

3.2 If Network Rail performs better than our PR08 determination, under the EBSM mechanism, train and freight operators share 25% of cumulative outperformance on a number of elements of expenditure and revenue with each operator receiving a pay-out in proportion to their variable track access charges. For items of expenditure, cumulative outperformance is measured as the amount that actual cumulative expenditure is less than the cumulative post-efficient assumed expenditure in the control period to date. Likewise for revenue items, cumulative outperformance is measured as the amount that actual cumulative revenue is greater than the cumulative post-efficient assumed revenue in the control period to date.

EBSM calculation for 2012-13

3.3 As summarised in Table 3.1, our assessment of Network Rail's cumulative performance in the first four years of CP4 shows that the company has not financially outperformed in England & Wales (-£539m). We have assessed that no EBSM payments should be made to train and freight operators in England & Wales.

3.4 As summarised in Table 3.2, our assessment of Network Rail's cumulative performance in the first four years of CP4 shows that the company has financially outperformed in Scotland (£32m). Although there is outperformance in Scotland of £32m, this is less than the cumulative outperformance in the prior year of £54m (in 2012-13 prices). EBSM payments are based on cumulative outperformance. Given the 2011-12 payment of £13m exceeds the EBSM payable in 2012-13 of £8m there is no payment due to train and freight operators in Scotland.

Table 3.1: EBSM calculation for England & Wales

£m, 2012-13 prices	Cumulative (CP4 to date)			
	Actual	PR08 determination	Adjustments	Outperformance
Expenditure				
Controllable opex	3,546	3,143	-	-403
Non-controllable opex - BTP	283	251	-	-32
Non-controllable opex - RSSB	33	35	-	2
Maintenance	4,046	4,432	-132[1]	254
Renewals	9,176	9,696	-364[1]	156
Schedule 4 costs	496	685	-51[1]	138
Total expenditure outperformance (underperformance)				**115**
Income				
Advertising income	76	82	-	-6
Retail income	298	256	-	42
Concessions income	71	47	-	24
Other property income	434	446	-	-12
Property sales	76	135	-	-59
Total income outperformance (underperformance)				**-11**
Adjustment for non-delivery of train punctuality and performance requirements			-436[2]	-436
Adjustment for sustainability on civils, drainage and fencing			-168[2]	-168
Adjustment for slippage of renewals volumes in CP4			-365[2]	-365
Adjustment for efficiencies claimed that have not passed the robustness test			-37[2]	-37
Adjustment for double-count of above adjustments			363[2]	363
Net outperformance (underperformance)				**-539**
EBSM payable (25% share)				**-**
Less payments made previously				-
Payment due				**-**

[1]*These adjustments are as a result of re-profiling within the control period.*
[2]*These adjustments are as a result of non-delivery of regulatory outputs, inconsistency with PR08 and/or a lack of evidence to support Network Rail's efficiency claims.*
Source: Network Rail's regulatory financial statements, our PR08 determination and our own analysis.

Table 3.2: EBSM calculation for Scotland

£m, 2012-13 prices	Cumulative (CP4 to date)			
	Actual	PR08 determination	Adjustments	Outperformance
Expenditure				
Controllable opex	367	314	-	-53
Non-controllable opex - BTP	30	27	-	-3
Non-controllable opex - RSSB	4	4	-	-
Maintenance	387	468	-	81
Renewals	1,142	1,345	-171[1]	32
Schedule 4 costs	31	44	-6[1]	7
Total expenditure outperformance (underperformance)				**64**
Income				
Advertising income	4	-	-	4
Retail income	25	27	-	-2
Concessions income	2	4	-	-2
Other property income	28	26	-	2
Property sales	5	4	-	1
Total income outperformance (underperformance)				**3**
Adjustment for non-delivery of train punctuality and performance requirements			-9[2]	-9
Adjustment for sustainability on civils, drainage and fencing			-32[2]	-32
Adjustment for slippage of renewals volumes in CP4			-23[2]	-23
Adjustment for efficiencies claimed that have not passed the robustness test			-8[2]	-8
Adjustment for double-count of above adjustments			37[2]	37
Net outperformance (underperformance)				**32**
EBSM payable (25% share)				**8**
Less payments made previously				-13
Payment due				**-**

[1]*These adjustments are as a result of re-profiling within the control period.*
[2]*These adjustments are as a result of non-delivery of regulatory outputs, inconsistency with PR08 and/or a lack of evidence to support Network Rail's efficiency claims.*
Source: Network Rail's regulatory financial statements, our PR08 determination and our own analysis.

Adjustments to EBSM

Re-profiling of expenditure

3.5 Our assessment of outperformance involves assessing the extent to which underspend is related to efficiency gains beyond those we assumed in our PR08 determination rather than the re-profiling of expenditure.

Deferral of opex and maintenance expenditure

3.6 The PR08 determination included funding for specific improvement schemes in CP4. Three of these schemes (the National Stations Improvement Programme (NSIP), HLOS performance fund and Seven Day Railway) included a mix of both capex and non-capex expenditure. Network Rail has undertaken less work on these schemes in the first four years of CP4 than we assumed in our PR08 determination, resulting in a cumulative £132m deferral for England & Wales[63]. Our assessment of outperformance has been adjusted for this deferral. The resulting maintenance outperformance is £254m in England & Wales and £81m in Scotland. The adjustment will unwind in the final year of the control period if Network Rail catches up on the deferred work on these schemes.

Deferral of renewals expenditure

3.7 As shown in Network Rail's CP4 delivery plan updates, the company has deferred significant amounts of renewals in the first four years of CP4. Our assessment of renewals outperformance involves assessing the extent to which Network Rail has outperformed only on renewals work that it has actually undertaken, i.e. excluding deferral.

3.8 The most practical way to measure 'deferral adjusted' renewals outperformance is to use Network Rail's REEM for renewals. Renewals REEM is a measure of efficiency improvements since the start of the control period on work done, i.e. it is adjusted for deferral. Comparing Network Rail's renewals REEM to the efficiency improvements we assumed in our PR08 determination provides a measure of renewals outperformance[64]. We have assessed cumulative renewals deferral in the first four years of CP4 to be £364m in England & Wales and £171m in Scotland resulting in financial outperformance before other renewals adjustments of £156m in England & Wales and £32m in Scotland.

[63] Note that these are England & Wales schemes and so there is no adjustment for Scotland. Network Rail has also adjusted its efficiency reporting in Statement 12 of the Regulatory Financial Statements for this deferral. It is not possible to fully identify the separate components for maintenance and operating expenditure, so we have applied the total adjustment to just maintenance expenditure in Table 3.1. This does not affect the EBSM calculation which is a measure of total outperformance across a number of items of expenditure and revenue including opex and maintenance.

[64] The renewals REEM baseline is a combination of our PR08 determination pre-efficient assumed expenditure for some assets, and PR08 determination pre-efficient volumes multiplied by 2008-09 unit costs for other assets, such as track. To be consistent with our PR08 determination an adjustment was applied for the EBSM calculation to use PR08 pre-efficient unit costs rather than 2008-09 actual unit costs where these were separately identifiable.

Deferral of Schedule 4 costs

3.9 Network Rail compensates train operators for the track possessions required to undertake planned engineering works. As 80% of planned track possessions relate to renewals work, the deferral of renewals in the control period to date has resulted in the deferral of some Schedule 4 costs. This deferral has been factored into our assessment of Schedule 4 outperformance. We have assessed the effect of the cumulative renewals deferral on Schedule 4 performance in the first four years of CP4 to be £51m in England & Wales and £6m in Scotland resulting in financial outperformance of £138m in England & Wales and £7m in Scotland.

Issues with Network Rail's reported financial performance

Adjustment for non-delivery of train punctuality and reliability requirements

3.10 As explained in the 'Issues with Network Rail's reported financial performance' section of Chapter 2 we have assessed the extent to which Network Rail's underspend in the first four years of CP4 is related to its non-delivery of train punctuality and reliability requirements. The long distance, London & South East and regional sectors missed their end of year PPM targets by 4.5%, 1.7% and 0.8% respectively. The long distance, London & South East and regional sectors also missed their CaSL target by 0.9%, 0.5% and 0.2% respectively. Freight ended the year at 3.47 delay minutes per 100kms which was 13.8% worse than the regulatory target.

3.11 At our request, Network Rail has estimated that the amount of PR08 funding that it received for train punctuality and reliability requirements which have not been delivered in 2012-13 may be £436m in England & Wales and nil in Scotland (i.e. this amount should be netted off against any outperformance[65]). Our assessment of outperformance has been adjusted for this. However, as noted in our 2011-12 annual efficiency and finance assessment, we will retain the adjustment of £9m for Scotland for missed train punctuality and reliability requirements in 2011-12, despite improving train performance in 2012-13.

Adjustment for sustainability on civils, drainage and fencing

3.12 As explained in the 'Issues with Network Rail's reported financial performance section' of Chapter 2, we consider that Network Rail may have not have financially outperformed in respect of civils, drainage and fencing assets, i.e. money has not been spent on renewing these assets in CP4 that should have been. Our view is that it would be appropriate for Network Rail's financial performance, to be adjusted down by £200m, for the amount of renewals work on civils, drainage and fencing assets that has not been done in CP4 to maintain the sustainability of the network. The split between England & Wales and Scotland has been based on the actual cumulative CP4 expenditure of England & Wales and Scotland compared to the actual cumulative CP4 expenditure of Great Britain for each asset category.

[65] Note that train operators have been compensated for Network Rail's non-delivery of its train punctuality reliability requirements through the Schedule 8 mechanism.

Adjustment for slippage of renewals volumes in CP4

3.13 As explained in the 'Issues with Network Rail's reported financial performance section' of Chapter 2, we consider that Network Rail may have impacted on the sustainability of the network by allowing a slippage of renewals volumes in CP4. Our view is that it would be appropriate for Network Rail's financial performance to be adjusted down by £388m, for the amount of renewals work on plain line track, signal crossing and electrification that has not been done in CP4. The split between England & Wales and Scotland has been based on the actual cumulative CP4 expenditure of England & Wales and Scotland compared to the actual cumulative CP4 expenditure of Great Britain for each asset category.

Adjustment for efficiencies claimed that have not passed the robustness test

3.14 As explained in the 'Issues with Network Rail's reported financial performance' section of Chapter 2, we have taken into consideration Arup's assessment that claimed renewal efficiencies for operational property and plant and machinery are not robust. Our view is that it would be appropriate for Network Rail's financial performance, to be adjusted down by £45m, for the amount of claimed efficiency above the PR08 determination. The split between England & Wales and Scotland has been based on the actual cumulative CP4 expenditure of England & Wales and Scotland compared to the actual cumulative CP4 expenditure of Great Britain for each asset category.

Adjustment for double-count with-in the above adjustments

3.15 As explained in the 'Issues with Network Rail's reported financial performance section' of Chapter 2, we consider that the above adjustments may have an element of double-count and have assessed this to be £400m at a Great Britain level. The split between England & Wales and Scotland have been based on the relative proportion of the above adjustments.

4. England & Wales

Summary

4.1 This chapter summarises Network Rail's overall financial performance in England & Wales compared to our PR08 determination. The chapter separately covers expenditure and efficiency, income, regulatory asset base, net debt, financing costs and financial indicators.

4.2 In this chapter, we provide explanations of observed variances only where the reasons for variances differ from that of Great Britain. Please refer to the discussions in the relevant sections of Chapter 2 for this information.

Expenditure and efficiency

4.3 As shown in Table 4.1, Network Rail's total expenditure in England & Wales in 2012-13 was £8,233m. This was £808m (10.9%) higher than we assumed in our PR08 determination. The factors that have contributed to this higher spend are largely similar to those for Great Britain. Figure 4.1 shows Network Rail's claimed cumulative efficiency for combined operational, maintenance and renewals expenditure for England & Wales over the first four years of CP4 compared to the trajectory.

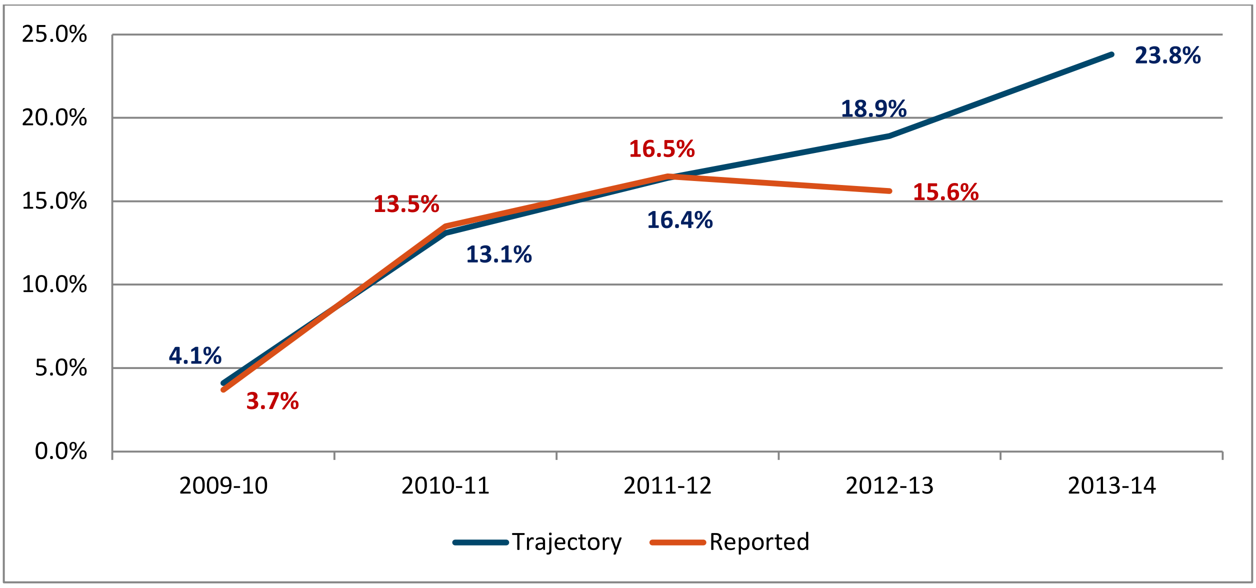
Table 4.1: Analysis of expenditure (England & Wales)

£m 2012-13 prices	Actual	PR08 determination	PR08 variance	Actual 2011-12	Prior year variance
	(A)	(B)	(B-A)	(C)	(C-A)
Cumulative					
Controllable opex	3,546	3,143	-403		
Maintenance	4,046	4,432	386		
Renewals	9,176	9,696	520		
Sub-total (OM&R)	**16,768**	**17,271**	**502**		
Non-controllable opex	1,731	1,577	-154		
Enhancements (PR08)	5,025	7,502	2,477		
Enhancements (non-PR08)	1,424	-	-1,424		
Total enhancements[66]	6,449	7,502	1,053		
Schedule 4 & 8	761	684	-77		
Financing costs	5,189	5,144	-45		
Corporation tax	11	15	4		
Rebates	152	-	-152		
Total expenditure	**31,061**	**32,193**	**1,132**		
2012-13					
Controllable opex	855	728	-127	843	-12
Maintenance	910	1,050	140	910	-
Renewals	2,465	2,015	-450	2,220	-245
Sub-total (OM&R)	**4,230**	**3,793**	**-437**	**4,374**	**144**
Non-controllable opex	450	412	-38	401	-49
Enhancements (PR08)	1,502	1,598	96	1,550	48
Enhancements (non-PR08)	439	-	-439	471	32
Total enhancements	1,941	1,598	-343	2,021	80
Schedule 4 & 8	253	141	-112	164	-89
Financing costs	1,356	1,467	111	1,362	6
Corporation tax	-	14	14	3	3
Rebates	3	-	-3	41	38
Total expenditure	**8,233**	**7,425**	**-808**	**7,965**	**-268**

Source: Network Rail's regulatory financial statements and our PR08 determination.

[66] This includes all Network Rail funded enhancements but excludes third party funded schemes (£263m) which are funded by external parties on a pay-as-you-go basis.

Figure 4.1: Comparison of actual to agreed trajectory for England & Wales OM&R efficiencies in CP4



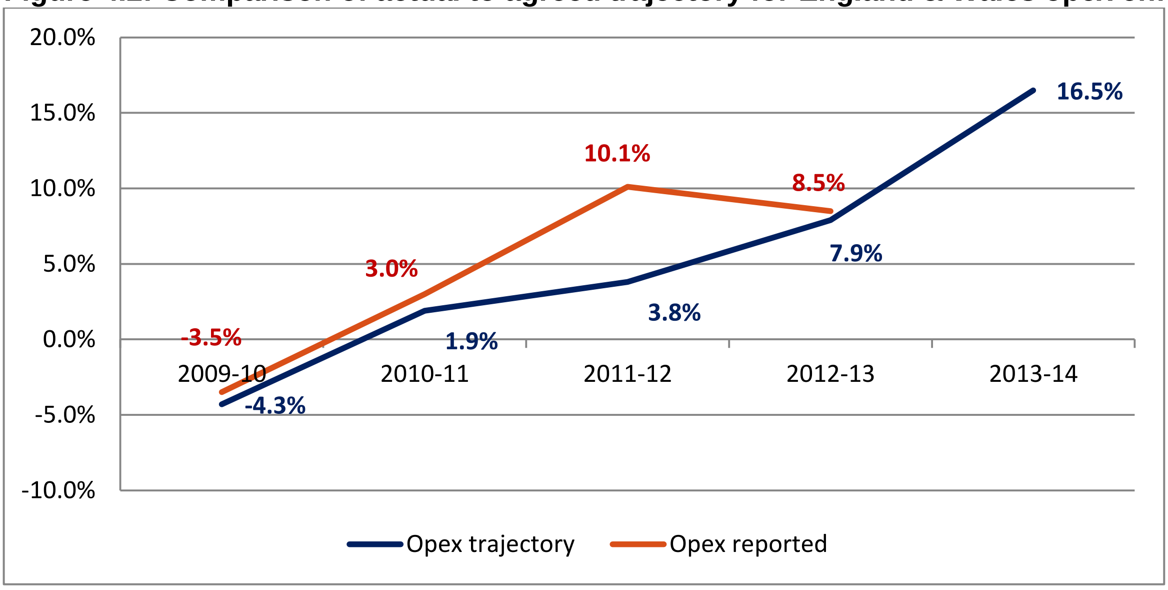
Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Controllable opex

4.4 Controllable operating expenditure (controllable opex) in England & Wales in 2012-13 was £855m. This was £127m (17.4%) higher than we assumed in our PR08 determination and £12m (1.4%) higher than in 2011-12. This is largely due to the same reasons as for Great Britain.

4.5 As shown in Figure 4.2, on a REEM basis, Network Rail has achieved cumulative controllable opex efficiency savings of 8.5% compared to the start of CP4 which is 0.6 percentage points ahead of the 7.9% savings in Network Rail's REEM trajectory.

Figure 4.2: Comparison of actual to agreed trajectory for England & Wales opex efficiencies in CP4



Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Non-controllable opex

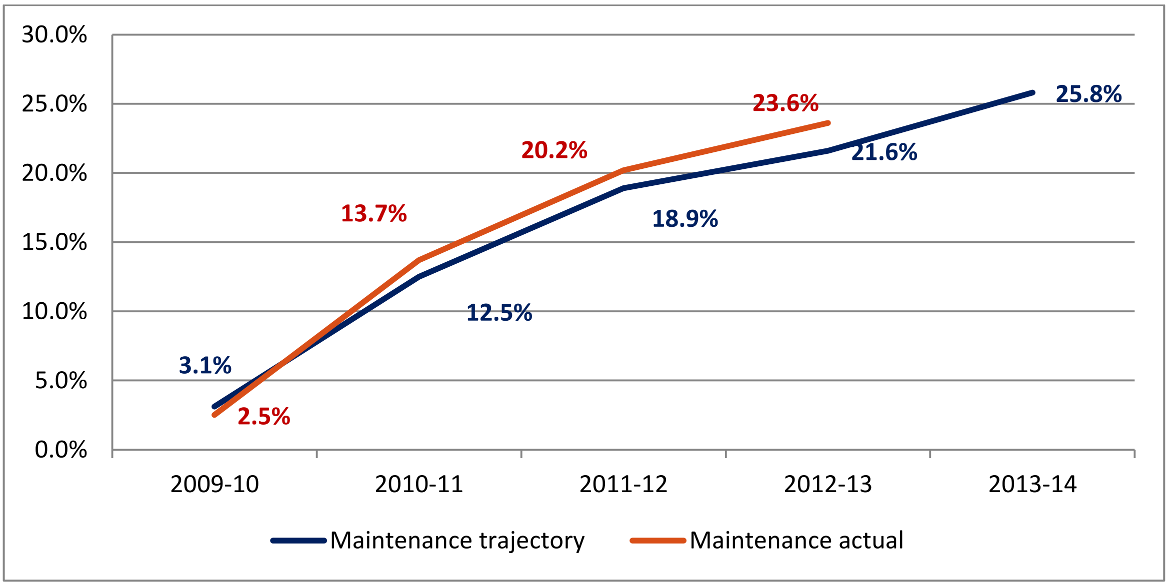
4.6 Non-controllable opex in England & Wales in 2012-13 was £450m. This was £38m (9.2%) higher than we assumed in our PR08 determination and £49m (12.2%) higher than in 2011-12. The variances, compared to our PR08 determination, are largely due to the same reasons as for Great Britain.

Maintenance

4.7 Maintenance expenditure in England & Wales in 2012-13 was £910m. This was £140m (13.3%) lower than we assumed in our PR08 determination and on par with 2011-12. The variances, compared to our PR08 determination, are largely due to the same reasons as for Great Britain.

4.8 As shown in Figure 4.3, on a REEM basis, Network Rail is reporting cumulative savings of 23.6% compared to the start of CP4 which is 2.0 percentage points ahead of the 21.6% savings in Network Rail's REEM trajectory.

Figure 4.3: Comparison of actual to agreed trajectory for England & Wales maintenance efficiencies in CP4



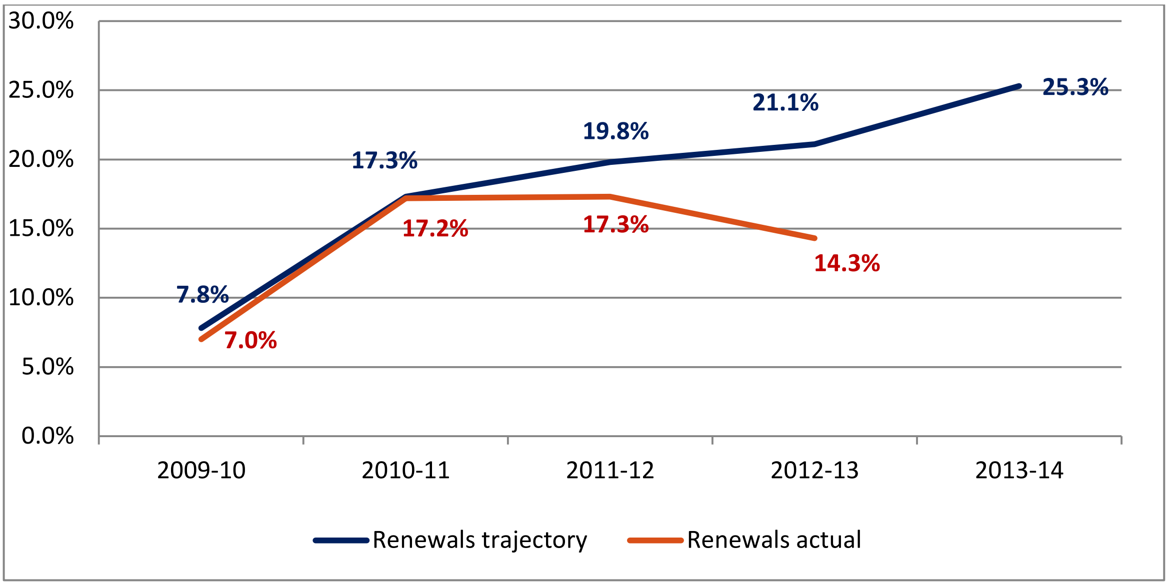
Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Renewals

4.9 Renewals expenditure in England & Wales in 2012-13 was £2,465m. This was £450m (22.3%) higher than we assumed in our PR08 determination and £245m (11.0%) higher than in 2011-12. The variances, compared to our PR08 determination, are largely due to the same reasons as for Great Britain.

4.10 As shown in Figure 4.4, on a REEM basis, Network Rail is reporting cumulative renewals savings of 14.3% compared to the start of CP4 which is 6.8 percentage points behind of the 21.1% savings in Network Rail's REEM trajectory.

Figure 4.4: Comparison of actual to agreed trajectory for England & Wales renewals efficiencies in CP4



Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Enhancements

4.11 Total enhancement expenditure for England & Wales in 2012-13 was £1,941m. This includes £1,502m of PR08 funded schemes and £439m of other Network Rail funded schemes[67]. Expenditure in 2012-13 on PR08 funded schemes was £96m (6.0%) lower than our PR08 determination. The variances, compared to our PR08 determination, are largely due to the same reasons as for Great Britain.

4.12 Cumulative PR08 enhancements expenditure was £2,477m (33.0%) lower than our PR08 determination. Cumulative non-PR08 enhancement expenditure is £1,424m. The variances, compared to our PR08 determination, are largely due to the same reasons as for Great Britain.

Income

4.13 As shown in Table 4.2, total income in 2012-13 for England & Wales was £5,862m. This was £20m (0.3%) lower than we assumed in our PR08 determination and £49m (0.8%) higher than 2011-12. The variances in income, compared to our PR08 determination, are largely due to the same reasons as for Great Britain. Table 4.3 shows a further breakdown of OSTI.

[67] Network Rail also undertook £263m of work on third party funded enhancement schemes in England & Wales. These schemes are not included in our analysis.

Table 4.2: Comparison of income (England & Wales)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Grant income	3,696	3,703	3,689	-7	7
Fixed charges	836	825	777	11	59
Variable charges	684	675	684	9	-
Total franchised track access income	1,520	1,500	1,461	20	59
Other single till income	646	679	663	-33	-17
Total income	**5,862**	**5,882**	**5,813**	**-20**	**49**

Source: Network Rail's regulatory financial statements and our own calculations.

Table 4.3: Comparison of other single till income (England & Wales)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Property income	137	183	127	-46	10
Freight income	47	77	45	-30	2
Open access income	23	22	27	1	-4
Stations income	366	338	363	28	3
Depots income	58	50	59	8	-1
Other	15	9	42	6	-27
Total other single till income	**646**	**679**	**663**	**-33**	**-17**

Source: Network Rail's regulatory financial statements and our own calculations.

Regulatory asset base

4.14 Movements in the RAB for England & Wales compared to our PR08 determination are summarised in Table 4.4. The provisional value of the RAB at 31 March 2013 was £40,340m, which was £3,276m lower than we assumed in our PR08 determination. The variance in the RAB, compared to our PR08 determination, is largely due to the same reasons as for Great Britain.

Table 4.4: Comparison of movements in the RAB (England & Wales)

£m, nominal prices	Actual 2012-13	PR08 determination	Variance
	(A)	(B)	(A-B)
Opening RAB at 1 April 2012 (2011-12 prices)	**38,045**	**40,933**	**-2,888**
Additions to the RAB			
Indexation for the year	1,134	1,219	-85
Renewals additions	1,993	2,015	-22
Enhancements additions	1,752	1,597	155
Reductions in the RAB			
Capex funded from the ring-fenced fund	-580	-580	-
Amortisation	-1,568	-1,568	-
Adjustment for missed regulatory outputs	-436	-	-436
Closing RAB at 31 March 2013 (2012-13 prices)	**40,340**	**43,616**	**-3,276**

Source: Network Rail's regulatory financial statements and our own calculations.

Financing

4.15 Network Rail issues debt at a group level for the company as a whole. As with other aspects of its business activities for regulatory purposes, Network Rail disaggregates its debt to England & Wales, and Scotland. Our analysis of financing in this document, except for movements in net debt, is at the Great Britain level and is covered in Chapter 2.

4.16 As shown in Table 4.5, closing net debt for England & Wales at 31 March 2013 was £26,156m. This was £1,377m (5.0%) lower than we assumed in our PR08 determination. The variance in net debt, compared to our PR08 determination, is largely due to the same reasons as for Great Britain.

Table 4.5: Analysis of the movements in net debt (England & Wales)

£m, nominal prices	Actual 2012-13	PR08 determination	Variance
	(A)	(B)	(A-B)
Opening net debt at 1 April 2012	**23,829**	**25,990**	**-2,161**
Total income	-5,862	-5,882	20
Total expenditure	6,874	5,944	930
Financing costs	1,356	1,467	-111
Corporation tax	-	14	-14
Rebates	3	-	3
Other	-44	-	-44
Movement in net debt during the year	**2,327**	**1,543**	**784**
Closing net debt at 31 March 2013	**26,156**	**27,533**	**-1,377**

Source: Network Rail's regulatory financial statements and our own calculations.

Financial indicators

4.17 As shown in Table 4.6, the actual AICR of 1.99 in 2012-13 was better than the 1.68 we assumed in our PR08 determination. The reasons for this variance are the same as for Great Britain overall. The actual

AICR is higher than the 1.40 trigger level in the access charges contracts, which means it does not meet the threshold level for a re-opener to be considered.

4.18 The net debt to RAB ratio at the end of 2012-13 was 64.8%. This was 1.2 percentage points worse than our PR08 determination of 63.6%, largely due to the same reasons as for Great Britain. It is lower than the 75.0% limit in Network Rail's network licence for 2012-13.

Table 4.6: Summary of the key financial indicators (England & Wales)

	Actual 2012-13	PR08 determination	Actual 2011-12
Adjusted interest cover ratio (AICR)	1.99	1.68	2.15
Net debt/RAB	64.8%	63.6%	62.6%

Source: Network Rail's regulatory financial statements and our PR08 determination.

5. Scotland

Summary

5.1 This chapter summarises Network Rail's overall financial performance in Scotland compared to our PR08 determination. The chapter separately covers expenditure and efficiency, income, regulatory asset base, net debt, financing costs and financial indicators.

5.2 In this chapter, we provide explanations of observed variances, only where the reasons for variances differ from that of Great Britain. Please refer to the discussions in the relevant sections of Chapter 2 for this information.

Expenditure and efficiency

5.3 As shown in Table 5.1, Network Rail's total expenditure in Scotland in 2012-13 was £797m. This was £126m (18.8%) higher than we assumed in our PR08 determination. Where the factors that have contributed to Scotland's higher spend compared to our PR08 determination differ from Great Britain, these have been identified in the rest of this chapter. Figure 5.1 shows Network Rail's claimed cumulative efficiency for combined operational, maintenance and renewals expenditure for Scotland over the first four years of CP4 compared to the trajectory.

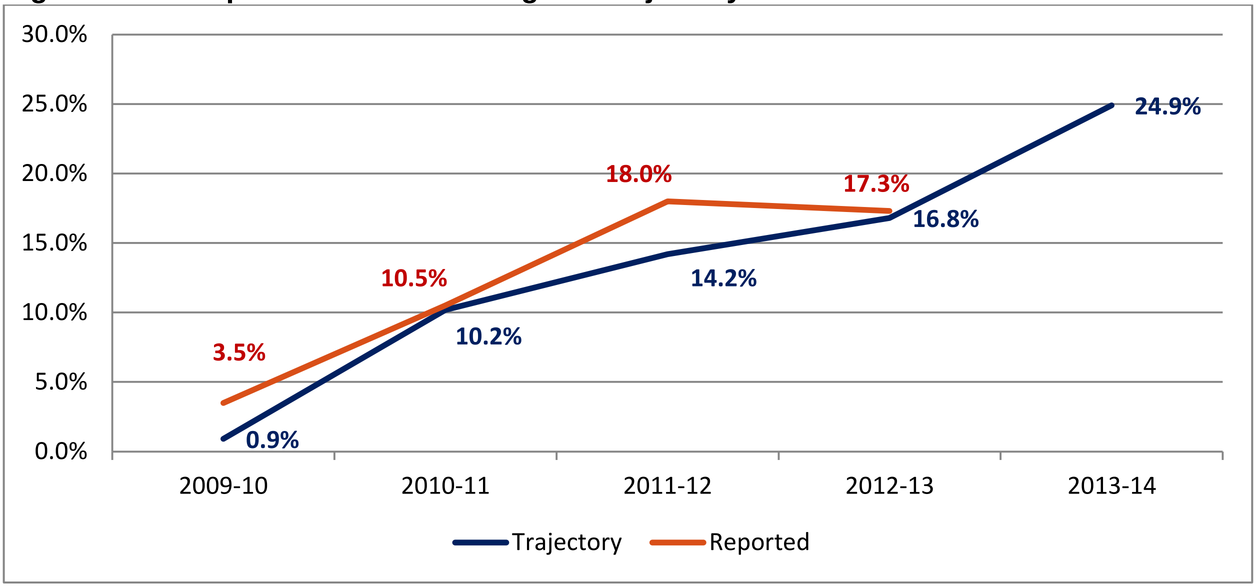
Table 5.1: Analysis of expenditure (Scotland)

£m 2012-13 prices	Actual	PR08 determination	PR08 variance	Actual 2011-12	Prior year variance
	(A)	(B)	(B-A)	(C)	(C-A)
Cumulative					
Controllable opex	367	314	-53		
Maintenance	387	468	81		
Renewals	1,142	1,345	203		
Sub-total (OM&R)	**1,896**	**2,127**	**231**		
Non-controllable opex	146	141	-5		
Enhancements (PR08)	447	465	18		
Enhancements (non-PR08)	178	-	-178		
Total enhancements[68]	625	465	-160		
Schedule 4 & 8	43	44	1		
Financing costs	564	555	-9		
Corporation tax	1	1	-		
Rebates	46	-	-46		
Total expenditure	**3,321**	**3,333**	**12**		
2012-13					
Controllable opex	84	72	-12	90	6
Maintenance	89	112	23	87	-2
Renewals	295	280	-15	308	13
Sub-total (OM&R)	**468**	**463**	**-5**	**517**	**49**
Non-controllable opex	47	37	-10	32	-15
Enhancements (PR08)	13	9	-4	79	66
Enhancements (non-PR08)	92	-	-92	39	-53
Total enhancements	105	9	-96	118	13
Schedule 4 & 8	5	9	4	13	8
Financing costs	140	152	12	152	12
Corporation tax	-	-	-	-	-
Rebates	32	-	-32	-	-32
Total expenditure	**797**	**671**	**-126**	**800**	**3**

Source: Network Rail's regulatory financial statements and our PR08 determination.

[68] This includes all Network Rail funded enhancements but excludes third party funded schemes (£9m) which are funded by external parties on a pay-as-you-go basis.

Figure 5.1: Comparison of actual to agreed trajectory for Scotland OM&R efficiencies in CP4



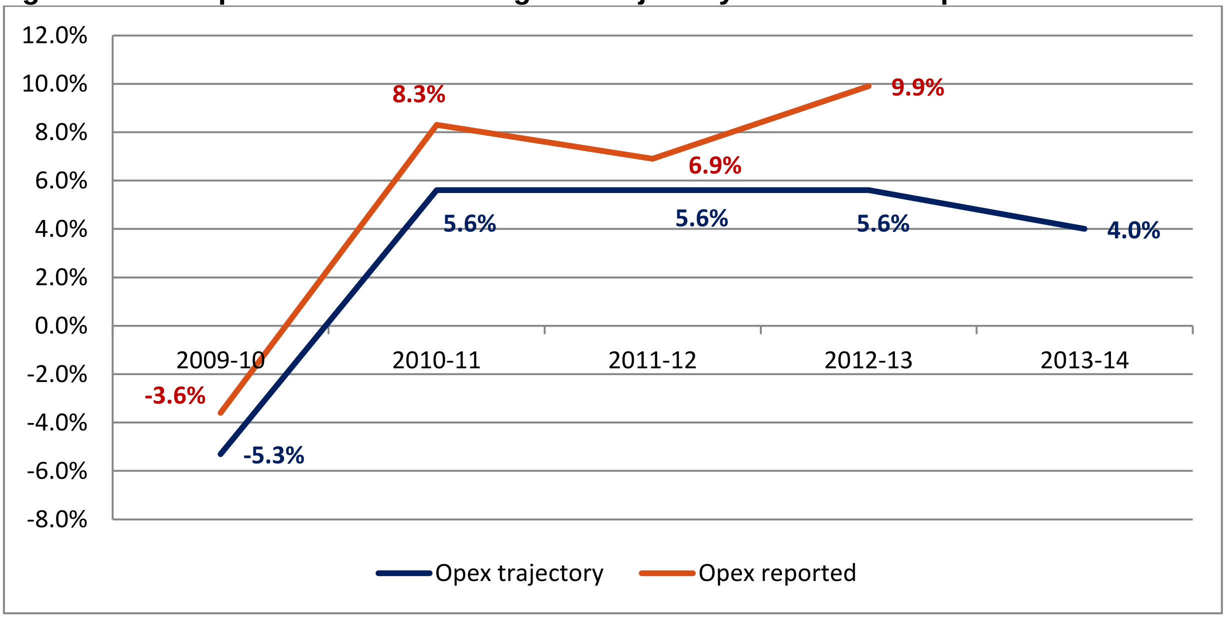
Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Controllable opex

5.4 Controllable operating expenditure in Scotland in 2012-13 was £84m. This was £12m (16.7%) higher than we assumed in our PR08 determination and £6m (6.7%) lower than 2011-12. The variances are largely due to the same reasons as for Great Britain.

5.5 As shown in Figure 5.2, on a REEM basis, Network Rail has achieved cumulative controllable opex efficiency savings of 9.9% compared to the start of CP4 which is 4.3 percentage points ahead of the 5.6% savings in Network Rail's REEM trajectory.

Figure 5.2: Comparison of actual to agreed trajectory for Scotland opex efficiencies in CP4



Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Non-controllable opex

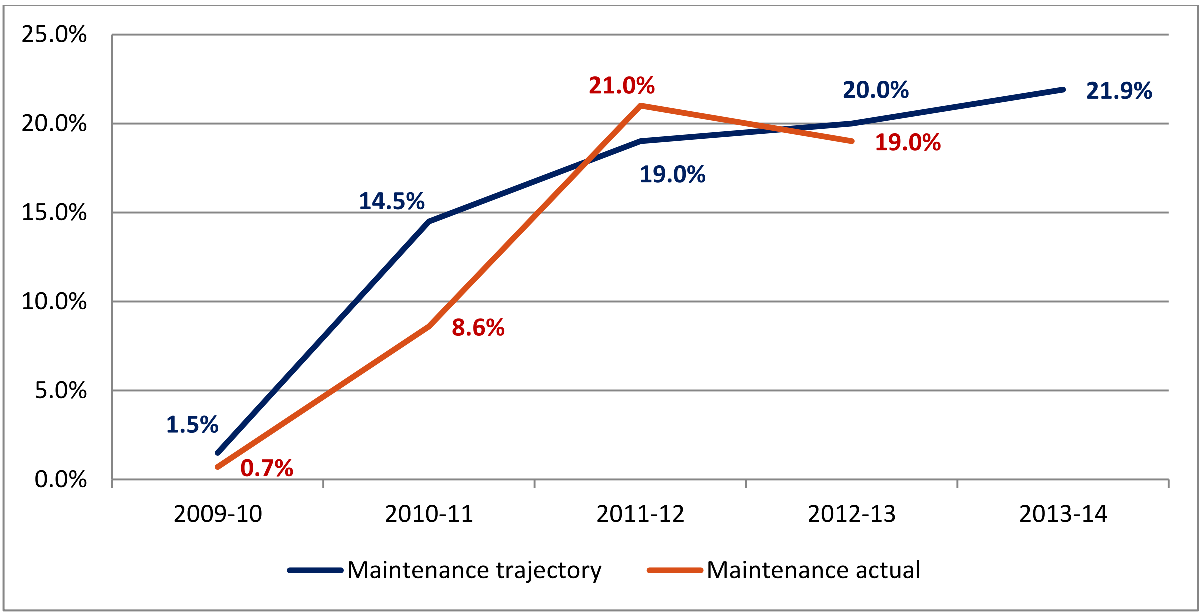
5.6 Non-controllable opex in Scotland in 2012-13 was £47m. This was £10m (27.0%) higher than we assumed in our PR08 determination and £15m (46.8%) higher than in 2011-12. The variance, relative to our PR08 determination, mainly reflects a £6m higher spend on traction electricity costs and a £4m higher spend on cumulo rates in Scotland. At a Great Britain level, Network Rail's expenditure on traction electricity costs and cumulo rates was also higher than our PR08 determination, however the actual spend above our PR08 determination for Scotland was proportionately higher (27.0%), compared to Great Britain (10.7%).

Maintenance

5.7 Maintenance expenditure in Scotland in 2012-13 was £89m. This was £23m (20.5%) lower than we assumed in our PR08 determination and £2m (2.3%) higher than in 2011-12. The lower spend compared to the PR08 determination is relatively higher in Scotland (20.5%) than the rest of Great Britain (14.0%).

5.8 As shown in Figure 5.3, on a REEM basis, Network Rail is reporting cumulative maintenance savings of 19.0% compared to the start of CP4 which is 1.0 percentage points behind the 20.0% savings in Network Rail's REEM trajectory.

Figure 5.3: Comparison of actual to agreed trajectory for Scotland maintenance efficiencies in CP4



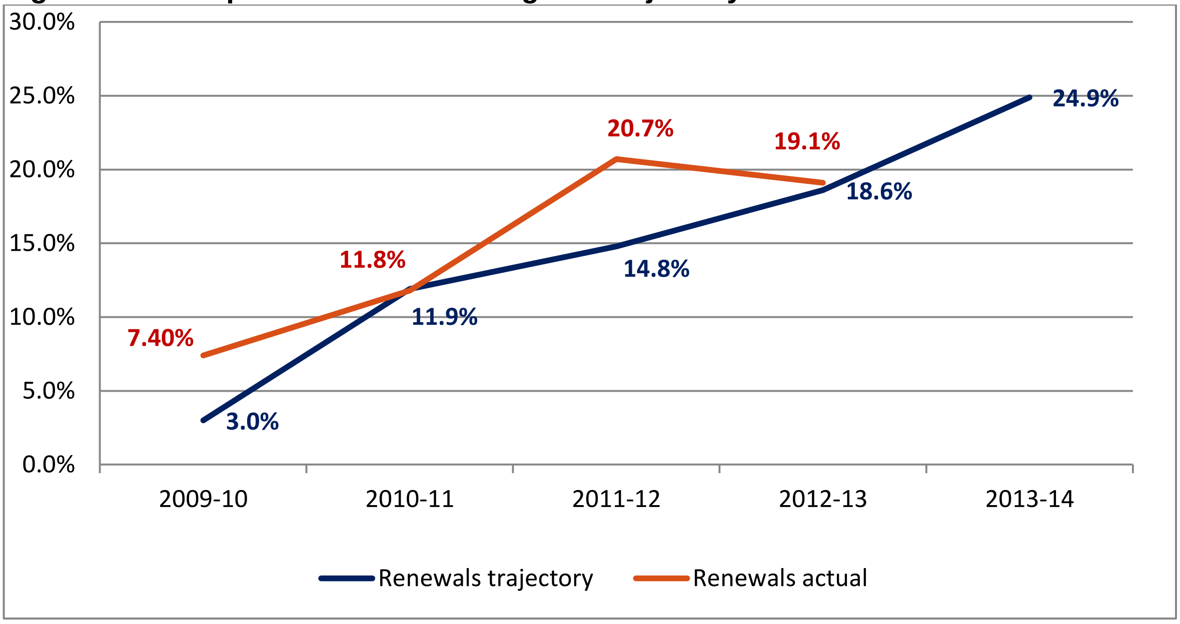
Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Renewals

5.9 Renewals expenditure in Scotland in 2012-13 was £295m. This was £15m (5.4%) higher than we assumed in our PR08 determination but £13m (4.2%) lower than in 2011-12. The majority of the higher spend compared to PR08 determination was on signalling (£14m) and plant and machinery (£8m), which was partially offset by an underspend on track (£11m). However, the actual spend above our PR08 determination in Scotland (5.4%) was not as high when compared to the Great Britain percentage (20.3%).

5.10 As shown in Figure 5.4, on a REEM basis, Network Rail is reporting cumulative renewals savings of 19.1% compared to the start of CP4 which is 0.5 percentage points ahead of the 18.6% savings in Network Rail's REEM trajectory.

Figure 5.4: Comparison of actual to agreed trajectory for Scotland renewals efficiencies in CP4



Source: Network Rail's regulatory financial statements and our own analysis (see Annex A).

Enhancements

5.11 Total enhancement expenditure for Scotland in 2012-13 was £105m. This includes £13m of PR08 funded schemes and £92m of other Network Rail funded schemes[69]. Expenditure on PR08 funded schemes was £4m (44.4%) higher than our updated PR08 determination for 2012-13 but £66m (83.5%) lower than in 2011-12. Expenditure on non PR08 funded schemes was £53m (135.9%) higher than in 2011-12. The higher spend on enhancements in the current year compared to our PR08 determination in Scotland (£4m) is largely a result of re-profiling of expenditure from earlier in the control period to 2012-13 (£15m), offset by underspend on the Paisley Corridor Improvement (£9m).

5.12 Cumulative PR08 enhancements expenditure was £18m (3.9%) lower than our PR08 determination. Non-PR08 expenditure was £178m for the control period to date.

[69] Network Rail also undertook £9m of work on third party funded enhancement schemes in Scotland. These schemes are not included in our analysis.

Income

5.13 As shown in Table 5.2, total income in 2012-13 for Scotland was £678m. This was £6m (0.9%) lower than we assumed in our PR08 determination and £27m (4.1%) higher than 2011-12. The variance in income, compared to our PR08 determination, is largely due to the same reasons as for Great Britain except for grant income. The variance in grant income when compared to Great Britain (i.e. higher percentage of shortfall (3.2%) compared to an overall Great Britain level of (0.4%)) is a result of re-profiling agreed between Network Rail and Transport Scotland which saw Network Rail receive more income in 2011-12 but less in 2012-13 and also in future years. Table 5.3 shows a further breakdown of OSTI.

Table 5.2: Comparison of income (Scotland)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Grant income	303	313	419	-10	-116
Fixed charges	273	274	136	-1	137
Variable charges	48	40	43	8	5
Total franchised track access income	321	314	179	7	142
Other single till income	54	57	53	-3	1
Total income	**678**	**684**	**651**	**-6**	**27**

Source: Network Rail's regulatory financial statements and our own calculations.

Table 5.3: Comparison of other single till income (Scotland)

£m, 2012-13 prices	Actual 2012-13	PR08 determination	Actual 2011-12	PR08 variance	Prior year variance
	(A)	(B)	(C)	(A-B)	(A-C)
Property income	7	8	7	-1	-
Freight income	7	11	8	-4	-1
Open access income	-	-	-	-	-
Stations income	32	32	31	-	1
Depots income	8	6	7	2	1
Other	-	-	-	-	-
Total other single till income	**54**	**57**	**53**	**-3**	**1**

Source: Network Rail's regulatory financial statements and our own calculations.

Regulatory asset base

5.14 Movements in the RAB for Scotland compared to our PR08 determination are summarised in Table 5.4. The provisional value of the RAB at 31 March 2013 was £4,598m, which was £105m (2.2%) lower than we assumed in our PR08 determination. The variance in the RAB compared to our PR08 determination of 2.2% compared to Great Britain of 7.0%, is largely due a higher percentage variance in the renewals and enhancement spend (46.6%) than noted in Great Britain (6.9%).

Table 5.4: Comparison of movements in the RAB (Scotland)

£m, nominal prices	Actual 2012-13	PR08 determination	Variance
	(A)	(B)	(A-B)
Opening RAB at 1 April 2012 (2011-12 prices)	**4,326**	**4,559**	**-233**
Additions to the RAB:			
Indexation for the year	129	136	-7
Renewals additions	324	280	44
Enhancements additions	101	10	91
Reductions to the RAB:			
Ring-fenced fund	-69	-69	-
Amortisation	-213	-213	-
Penalty for missed outputs	-	-	-
Closing RAB at 31 March 2013 (2012-13 prices)	**4,598**	**4,703**	**-105**

Source: Network Rail's regulatory financial statements and our own calculations.

Financing

5.15 Network Rail issues debt at a group level for the company as a whole. As with other aspects of its business activities for regulatory purposes, Network Rail disaggregates its debt to England & Wales and Scotland. Our analysis of financing in this document, except for movements in net debt, is at the Great Britain level and is covered in Chapter 2.

5.16 As shown in Table 5.5, closing net debt for Scotland at 31 March 2013 was £2,774m. This was £28m (1.0%) lower than we assumed in our PR08 determination. The variance in net debt, compared to our PR08 determination, is relatively lower in percentage terms (1.0%) compared to Great Britain (4.6%).

Table 5.5: Analysis of the movements in net debt (Scotland)

£m, nominal prices	Actual 2012-13	PR08 determination	Variance
	(A)	(B)	(A-B)
Opening net debt at 1 April 2012	**2,660**	**2,814**	**-154**
Total income	-678	-684	6
Total expenditure	625	519	106
Financing costs	140	152	-12
Corporation tax	-	-	-
Rebates	32	-	32
Other	-5	1	-6
Movement in net debt during the year	**114**	**-12**	**126**
Closing net debt at 31 March 2013	**2,774**	**2,802**	**-28**

Source: Network Rail's regulatory financial statements and own calculations.

Financial indicators

5.17 As shown in Table 5.6, the actual AICR of 2.53 in 2012-13 was better than the 1.80 we assumed in our PR08 determination. The reason for this variance is the same as for Great Britain overall. The actual AICR is higher than the 1.40 trigger level in the access charges contracts, which means it does not meet the threshold level for a re-opener to be considered.

5.18 The net debt to RAB ratio at the end of 2012-13 was 60.3%. This was 0.5 percentage points worse than our PR08 determination of 59.8%, largely due to the same reasons as for Great Britain. It is lower than the 75.0% limit in Network Rail's network licence for 2012-13.

Table 5.6: Summary of the key financial indicators (Scotland)

	Actual 2012-13	PR08 determination	Actual 2011-12
Adjusted interest cover ratio (AICR)	2.53	1.80	2.20
Net debt/RAB	60.3%	59.8%	61.5%

Source: Network Rail's regulatory financial statements and our PR08 determination

Annex A: How we monitor efficiency

Introduction

Improving efficiency is essential if the railway is to provide value for money for customers and funders, so the reporting of economic efficiencies fulfils an important function explaining Network Rail's performance to stakeholders and providing a key input into the calculation of Network Rail's management bonuses through its management incentive plan. It also provides a key input into the EBSM and assists in setting our PR13 determination.

Within our PR08 determination we challenged Network Rail to make progressive efficiency savings in the work that it undertakes in CP4 to operate, maintain and renew its infrastructure. As summarised in Table A1, we assumed that Network Rail could achieve cumulative savings of 21.0% compared to the expenditure that we expected Network Rail to incur in 2008-09, the final year of control period 3 (CP3)[70].

Table A1: Efficiency improvements assumed in our PR08 determination (net of input price assumptions)

	2009-10	2010-11	2011-12	2012-13	2013-14
Controllable opex					
Annual efficiency	2.8%	2.8%	4.0%	4.0%	4.0%
Cumulative efficiency	*2.8%*	*5.5%*	*9.3%*	*12.9%*	*16.4%*
Maintenance					
Annual efficiency	3.2%	3.2%	4.0%	4.5%	4.5%
Cumulative efficiency	*3.2%*	*6.3%*	*10.1%*	*14.1%*	*18.0%*
Renewals					
Annual efficiency	5.0%	5.0%	5.5%	5.5%	5.5%
Cumulative efficiency	5.0%	9.8%	14.7%	19.4%	23.8%
Total					
Annual efficiency	4.2%	4.1%	4.7%	4.9%	4.9%
Cumulative efficiency	*4.2%*	*8.2%*	*12.5%*	*16.8%*	*21.0%*

Source: PR08 final determination Table 8.4.

[70] Note that our PR08 determination was concluded in October 2008. Consequently, in determining what efficiency improvements could be made in CP4 it was necessary to assume the level of expenditure that Network Rail would incur in 2008-09, the final year of CP3. Network Rail subsequently made lower controllable opex efficiency savings in 2008-09 than we had expected resulting in Network Rail starting CP4 in a worse position than we assumed in our PR08 determination.

Measuring efficiency

In determining what efficiency improvements could be made in CP4 it was necessary in our PR08 determination to assume the level of expenditure that Network Rail would incur in 2008-09, the final year of CP3. Network Rail subsequently made lower controllable opex efficiency savings in 2008-09 than we had expected resulting in Network Rail starting CP4 in a worse position than we assumed in our PR08 determination. Consequently Network Rail's CP4 efficiency challenge is higher than the efficiency improvements we assumed in our PR08 determination and summarised in Table A1.

Network Rail uses a REEM measure for reporting on efficiency improvements in CP4 compared to actual expenditure in the final year of CP3, rather than the costs that we expected when setting the PR08 determination for CP4. REEM also reflects Network Rail's re-profiling of expenditure in CP4 compared to the profile we assumed in our PR08 determination. The main differences between REEM and the PR08 determination measure are:

a) for controllable opex and maintenance expenditure, the REEM baseline is the 2008-09 actual expenditure plus adjustments for inflation and other exogenous factors, e.g. changes in traffic and required outputs. Whereas the comparison to our PR08 determination measure compares actual expenditure to the level of pre-efficient expenditure we assumed in our PR08 determination;
b) for some renewals categories, such as track, the REEM baseline is calculated by multiplying the PR08 determination implied volumes by 2008-09 unit costs; and
c) for other renewals categories, such as plant and machinery, the REEM baseline is the level of pre-efficient expenditure in our PR08 determination.

Network Rail's own REEM trajectory for CP4 is shown in Table A2. If Network Rail achieves its trajectory to deliver 23.5% cumulative REEM savings it will have delivered the 21.0% efficiency improvements we assumed in our PR08 determination. This difference is mostly due to Network Rail achieving lower efficiency savings in the final year of CP3 than we expected.

Table A2: Network Rail's trajectory for cumulative improvements in real economic efficiency (net of input price assumptions)

	2009-10	2010-11	2011-12	2012-13	2013-14
Controllable opex					
Annual efficiency	-4.4%	6.3%	1.8%	3.9%	8.2%
Cumulative efficiency	*-4.4%*	*2.2%*	*4.0%*	*7.7%*	*15.3%*
Maintenance					
Annual efficiency	2.8%	10.1%	7.2%	3.2%	5.1%
Cumulative efficiency	*2.8%*	*12.6%*	*18.9%*	*21.5%*	*25.5%*
Renewals					
Annual efficiency	7.1%	10.2%	2.5%	2.6%	5.6%
Cumulative efficiency	*7.1%*	*16.6%*	*18.7%*	*20.8%*	*25.2%*
Total					
Annual efficiency	3.6%	9.5%	3.8%	3.0%	6.0%
Cumulative efficiency	*3.6%*	*12.8%*	*16.1%*	*18.6%*	*23.5%*

Source: Network Rail's cumulative REEM trajectory was published in a 2010 letter titled 'Success in CP4'[71].

[71] A copy of this letter is available at: http://www.rail-reg.gov.uk/upload/pdf/nr-cp4-success-010311.pdf.

Annex B: EBSM supporting information

Items of expenditure and revenue included within the EBSM calculation

Our PR08 determination set out that outperformance would be measured on (i) all operating, maintenance and renewals expenditure; and (ii) a number of revenue elements (variable track access charges associated with additional traffic, retail and property rental income and Schedule 4).

Following the conclusion of the periodic review, we considered it was better to incentivise the industry and made some adjustments and clarifications to the policy as follows:

(a) to exclude variable track access charges from the calculation. The EBSM rewards operators for their contribution to the outperformance of Network Rail against our PR08 determination. Variable track access charges are a means for Network Rail to recover the ‘wear and tear’ cost to the network it incurs through additional network traffic. This means if Network Rail pays out additional variable charge income outperformance it will be out of pocket. We therefore decided that these elements should not be included in the calculation of outperformance;

(b) to exclude traction electricity, business rates, licence fee and safety levy from operating expenditure in the calculation. Unlike other items of operating expenditure, these are considered to be largely outside of the control of both Network Rail and train operators;

(c) that property sales income should be included as this is an area of revenue that train operators should be able to influence; and

(d) that Schedule 4 should refer to Schedule 4 payments rather than revenues. Schedule 4 payments are made by Network Rail to train operators in compensation for planned engineering works which affect network availability. As we want to encourage improvements to these working arrangements we consider it more appropriate for the mechanism to include Schedule 4 costs and not Schedule 4 revenues[72].

[72] Schedule 4 revenues are transfers between two industry members. They have little or no incentive effect on performance improvements.