2018 periodic review final determination

Supplementary document – financial framework

October 2018

Contents

About this document

The 2018 periodic review (PR18) is the process through which we determine what Network Rail[1] should deliver in respect of its role in operating, maintaining and renewing its network in control period 6 (CP6)[2] and how the funding available should best be used to support this. This feeds through into:

- the service that passengers and freight customers receive and, together with taxpayers, ultimately pay for; and
- the charges that Network Rail's customers, including passenger, freight and charter train operators, will pay for access to its track and stations during CP6.

In June 2018, we consulted on our PR18 draft determination[3], setting out our proposed decisions in all of the main areas of PR18. Following receipt of consultation responses, we have reviewed stakeholders' comments and these have helped to inform the final decisions set out in our final determination. We are grateful to all those who responded to the consultation.

Accordingly, the final determination sets out our overall decisions on PR18. Among the documents that we have published is an overview document, setting out:

- our decisions in all the main areas of PR18;
- a summary of how we will regulate Network Rail's delivery in CP6; and
- next steps in PR18.

In addition, there are high-level summaries of our main decisions for each of England & Wales and Scotland.

We have also published a document summarising stakeholders' comments on the PR18 draft determination and our response to these.

The full set of documents that form the final determination is set out in the box overleaf[4].

[1] All references to Network Rail in this document are to Network Rail Infrastructure Limited.

[2] CP6 will run from 1 April 2019 to 31 March 2024.

[3] The full suite of PR18 draft determination documents are available from this webpage. To access earlier consultation and conclusions documents that led up to the PR18 draft determination, please see the map of these documents here.

[4] Our policy on managing change will be published in November 2018. Some documents, such as the consultancy and reporter studies, will be published shortly after the final determination.

Our final determination documents (includes weblinks)

PR18 final determination overview document

England & Wales summary

Scotland summary (and settlement details)

PR18 draft determination consultation – summary of comments and our response

Settlement documents

- FNPO route
- System Operator
- England & Wales
  - Anglia route
  - LNE & EM route
  - LNW route
  - South East route
  - Wales route
  - Wessex route
  - Western route

Supplementary documents

- SBP assessment
  - Scorecards and requirements
  - Health & safety
  - Review of NR's proposed costs
  - Other single till income
  - Stakeholder engagement
- Policy
  - Financial framework
  - Review of network licence: conclusions from consultation
  - Overview of charges & incentives decisions
  - Infrastructure cost charges conclusions
  - Variable usage charge conclusions

Other documents

- Glossary
- Managing Change Policy
- Consultancy & reporter studies
- Grading of Network Rail's route and System Operator strategic plans for CP6

Executive summary

This is our final determination for the PR18 financial framework. It follows our draft determination that we published in June 2018 and takes account of the responses we received. It should be read in conjunction with the other final determination documents.

In this document, we set out our decisions for the CP6 control period for Network Rail that will run from 1 April 2019 to 31 March 2024 on:

- a switch from RPI to CPI for the indexation of Network Rail's track access charges, and payment rates in other mechanisms where we set the method of indexation;
- financial risk funding and governance for PR18 financial settlements;
- the determination of revenue requirements and their recovery through charges and network grants; and
- cost of capital values and other financial issues.

Inflation indexation

We are confirming the decision set out in our draft determination to switch from the RPI measure of inflation to CPI for the indexation of track access charges and payment rates in other mechanisms where we set the method of indexation in CP6. We will also use CPI to inflate RAB balances in CP6. Network grants will not be indexed in CP6.

We have decided to switch to CPI because it is generally accepted to be a better measure of inflation than RPI and the advantages justify the limited impacts that will need to be managed. We have calculated revenue requirements so that there is limited direct impact on Network Rail and train operators in CP6.

Budgetary flexibility

Following Network Rail's reclassification as an arm's length public sector body, it will be subject to restrictions on:

- spending money in different years than initially agreed with the governments; and
- switching expenditure between operating (resource) and capital expenditure,

in both cases with reference to total amounts (as opposed to route level) for Great Britain.

The Department for Transport (DfT) has set out the budgetary flexibility that Network Rail can expect to be allowed during CP6 in respect of Great Britain, as it is the position for Great Britain that is consolidated into DfT's accounts. The flexibilities will be the same for Scotland and for England & Wales. This gives Network Rail significantly more flexibility than most other arm's length public bodies.

We will discuss with the governments and Network Rail how the budget flexibility rules that the company will be subject to will work in practice. This includes the link to enhancement expenditure where the profile of spend will depend on decisions taken by the governments under their pipeline approaches.

Financial risk management

We have decided to use a hybrid approach to financial risk management that combines funding being held as a provision for financial risk at both route level and at the centre, and funding allocated to contingent asset management funding (we previously called this contingent renewals) that could be deferred if financial risks materialise. However, if some risks do not materialise, the contingent asset management funding could be used to improve outputs.

We have agreed with Network Rail that its total risk funding for England & Wales should be £2,311m (in 2017-18 prices). However, our final determination is that the balance between risk funding held in the routes and the centre should be different to the proposals in Network Rail's strategic business plans (SBPs). We have moved £856m from the centre to the routes, as contingent asset management funding. The allocation of risk funding for England & Wales is therefore:

- route-controlled risk funding: £600m;
- contingent asset management funding: £856m; and
- centrally-held group portfolio fund (GPF): £856m.

In our draft determination, we asked Network Rail to review its allocation of risk funding across the England & Wales routes. It has now done this and we have accepted its revised allocation.

We also consider the total risk funding of £284m (in 2017-18 prices) proposed by Network Rail for Scotland to be appropriate. Given there are separate funding arrangements for Scotland and risk funding for Scotland will be ring-fenced from the amounts for the England & Wales routes, we have decided that all risk funding for Scotland should be held at route level.

Risk funding and governance

On its own, our final determination cannot guarantee that the performance levels, improvements and other requirements are delivered. There are risks and uncertainty, and circumstances will change over CP6. It is for this reason that the determination includes significant funding for Network Rail to manage risk and new processes that support orderly change control throughout CP6.

We have provided updated views on the governance we consider should apply to the use of risk funding in CP6 after further discussions with Network Rail, and we have outlined the key principles for managing risk funding. Network Rail broadly agrees with our principles and will incorporate them in its business planning guidelines. Our Managing Change Policy will be published in November 2018. Some of the financial aspects of this policy are explained in this document.

Determination of revenue requirements

Calculating revenue requirements

Our revenue requirements for CP6 take account of the targeted updates that Network Rail has made to its SBPs for England & Wales over the summer of 2018 and its response to our draft determination. In this document, we confirm the approach we have used to determine the revenue requirements for each of Network Rail's routes for each year of CP6 contained in the individual settlement documents and set out our determination of total revenue requirements for England & Wales, Scotland, and Great Britain.

Our determination shows the expected cost recharges between the geographical routes, FNPO and SO. Following our review, we have decided not to make any changes to the cost recharges for central functions that Network Rail has included in its SBPs.

Reflecting Network Rail's commitment to continuous improvement in this area and the importance of route level regulation, we expect Network Rail to keep the methods it uses under review in CP6 and where appropriate update its methodology, for example, where better data is available. We would discuss the implications and timing of any potential changes to the methodology with Network Rail's routes and centre, DfT and Transport Scotland.

Recovery of revenue requirements

We also set out the way that we expect revenue requirements will be recovered through charges and network grant payments in CP6.

Network grants and track access contracts

Network grants and grant dilution provisions

For CP5, there has been a deed of grant between DfT and Network Rail, and a grant agreement between Transport Scotland and Network Rail, in respect of network grant payments. These set out the dates and amounts for network grant payments.

In light of Network Rail's reclassification as a public sector arm's length body, the network grant deed/agreement might be replaced by more straightforward letters of grant. This is something that remains to be agreed by DfT and Transport Scotland with Network Rail. We expect that, as with the grant deed/agreement, letters of grant would still set out a schedule of network grant payments and dates payable. However, they might also provide for payments to be varied in certain circumstances, for example, due to deferral of work.

The track access contracts for franchised passenger operators contain network grant dilution provisions. These provide that, in the unlikely event that a network grant payment is not made[5], the franchised train operators would each be obliged to pay a share of the shortfall to Network Rail. This reflects that the network grants offset an amount of income that would otherwise be recovered through higher fixed track access charges.

We have decided to retain the network grant dilution provisions currently included in track access contracts, as it is important that Network Rail has appropriate certainty over its network grant income. Whether a deed of grant/agreement or grant letter is used, the grant dilution clause in access contracts would still be enforceable.

Re-opener provisions

We confirm the decision in our draft determination to retain the access charge review (re-opener) provisions in track access contracts for CP6.

Other financial issues

We have also set out final decisions for CP6 on:

- cost of debt and weighted average cost of capital values;
- the approach for setting and updating RAB values and forecast RAB balances for each geographical route and SO by year;
- re-categorising some items of other single till income (OSTI) to simplify the presentation of revenue requirement calculations; and
- discontinuing ‘early start’ provisions and corporation tax and VAT incentive mechanisms - we will not be using these policies in CP6. However, we will reconsider these matters for future periodic reviews if the funding structure for Network Rail changes significantly.

Efficiency and financial monitoring

We explained how we will monitor and report on Network Rail’s financial performance during CP6 in our conclusions document on monitoring efficiency and financial performance in CP6, which we published alongside our draft determination. We will publish our detailed approach in regulatory accounting guidelines (RAGs) before the start of CP6.

[5] For example, the governments missing entirely a scheduled payment or not following the agreed grant payment process with Network Rail.

1. Introduction

1.1 This is our final determination for the PR18 financial framework, setting out our decisions and updated views in light of the responses we received to our draft determination and earlier consultations. The responses are summarised in our document: ‘Consultation on the draft determination – summary of comments and our response’.

1.2 This document sets out our determination of revenue requirements for Network Rail in CP6. The details of each route’s revenue requirement are contained in the settlement documents. The total revenue requirements for England & Wales, Scotland, and Great Britain as a whole are contained in Annex E of this document.

1.3 In chapter 2, we confirm our decision to switch to CPI for the indexation of Network Rail’s track access charges, and payment rates in other mechanisms where we set the method of indexation. We also set out how we will apply this decision in our determination of Network Rail’s revenue requirements for CP6.

1.4 In chapter 3 we:

- explain the risk funding we have provided for Network Rail in CP6 and the factors that apply to the determination for Scotland;
- set out our views on the use and governance of risk funding by Network Rail and outline some of the financial aspects of our Managing Change Policy;
- explain the treatment of financial outperformance;
- explain the policy on rebate payments to the governments; and
- explain how DfT/Transport Scotland’s budgetary process will interact with the payment of grants.

1.5 Chapter 4 contains our decisions on other financial issues for CP6 on:

- opening RAB balances for England & Wales, Scotland, and Great Britain and for the geographical routes and the System Operator (SO) and the approach we will use to update them;
- re-categorisation of other single till income (OSTI) items;
- the treatment of asset disposal proceeds;
- early start provisions;
- incentives relating to corporation tax and VAT adjustments;

- the treatment of Schedule 4 and 8 costs;
- the treatment of traction electricity; and
- the opex memorandum account.

1.6 Chapter 5 sets out our decisions on the cost of capital and cost of debt values for Network Rail in CP6.

1.7 In chapter 6 we:

- provide information on how we have determined our revenue requirement settlements for Network Rail's routes. This includes explaining the process for calculating the Scotland route revenue requirement and the Scotland total revenue requirement including how cost recharges affect the calculations;
- explain the approach we use to determine the proportions of Network Rail's total revenue requirement for each year of CP6 that should be recovered though fixed track access charges, and network grant payments from the governments;
- set out the treatment of non-SoFA expenditure in CP6; and
- confirm for accounting purposes how some aspects of our determination would change if Network Rail's business was privately financed.

1.8 In chapter 7 we explain:

- how network grant dilution provisions work;
- our views on the re-opener provisions; and
- the position with the Financial Indemnity Fee (FIM).

1.9 There are also the following annexes:

- Annex A contains a list of related documents that provide context for our final determination.
- Annex B is the glossary.
- Annex C contains a summary of the budgetary flexibility that we expect to be available to Network Rail in CP6.
- Annex D explains our determination of the revenue requirement for each of Network Rail's routes.

- Annex E shows our determination of revenue requirements for CP6 for England & Wales, Scotland, and Great Britain and the forecast closing RAB balances for CP6. It also provides reconciliations between the income and expenditure included in the income and expenditure/revenue requirement tables and the affordability tables included in the final determination overview of approach and decisions document. Network Rail's total expenditure in CP6 for Great Britain including non-SoFA expenditure is also shown.

- Annex F shows worked examples of the approach to the balance between FTACs and network grants.

- Annex G sets out an illustration of revenue requirement calculations showing the interaction between geographical routes, SO and FNPO.

- Annex H summarises our CP6 efficiency assumptions for Great Britain, England & Wales and Scotland.

2. Inflation indexation

Introduction

2.1 In this document, we are confirming the decision we set out in our draft determination to switch from RPI to CPI for indexation of Network Rail's track access charges, and payment rates in other mechanisms where we set the method of indexation[6].

2.2 All the decisions we have made or confirmed below have been taken after considering responses to our previous financial framework documents and our draft determination. We provide more detail on the responses we have received and our views on them in our document: 'Consultation on the draft determination – summary of comments and our response'. The majority of respondents agreed with the approach we set out in our draft determination.

Inflation indexation

2.3 As set out in our draft determination, we will switch our method of indexation from RPI to CPI because the benefits will significantly outweigh the limited impacts. In particular:

- there is a broad national and international consensus on the benefits of using CPI, and RPI is no longer regarded as a robust measure of inflation;
- as a better measure of inflation, CPI should provide more appropriate economic signals for Network Rail and its stakeholders;
- Network Rail is no longer directly exposed to movements in RPI on its index-linked debt because DfT will reimburse Network Rail for actual costs; and
- some economic regulators are already using the CPI measure and it is likely that others will use it in the future.

2.4 We are using the CPI measure rather than CPIH for CP6 because:

- it is the measure of general inflation currently targeted by the Bank of England;
- there is presently greater availability of CPI forecasts; and
- differences between CPI and CPIH have historically been relatively small.

2.5 We will review the use of CPIH at our next periodic review.

[6] These include station charges, and Schedule 4 and Schedule 8 payments.

Indexation of RAB balances in CP6

2.6 We are also confirming our decision to use CPI for the indexation of RAB values in CP6. This will mean that the value of Network Rail's geographical route, SO and total RAB balances will be appropriately preserved going forward.

Applying the switch from RPI to CPI in our determination

Adjustment to expenditure assumptions[7]

2.7 In our impact assessment for our second financial framework consultation, we considered that there should not be a significant direct impact on Network Rail from the switch to using CPI instead of RPI. This was because we would increase the incremental input price effects assumption in Network Rail's expenditure forecasts, to take account of lower expected inflation indexation increases during CP6[8]. In other words, we will adjust the expenditure assumptions for the differential between RPI and CPI. Our methodology for this is outlined below.

2.8 We acknowledged that if the differential between CPI and RPI were to change significantly (either lower or higher), the impact of the switch could be greater than expected. In practice, this would have the same effect as a difference between the actual input price inflation Network Rail faces compared to our determination assumption. This is one of the risks that the risk funding included in our revenue requirements will cover.

2.9 We commented that train operators might be affected to a limited extent by:

- slightly higher opening variable usage charges (VUCs) and electrification asset usage charges (EAUCs) - we estimate around a 4 percent increase in the first year, offset by lower indexation increases during CP6;
- lower Schedule 4 & 8 payment rates[9]; and
- transaction costs if, for example, invoice payment systems needed to be updated.

2.10 It currently appears that for a period of time there could be different inflation measures in use for indexing track access charges on the one hand, and regulated passenger rail fares on the other.

[7] Where appropriate, we have also adjusted income assumptions, i.e. other operating income, OSTI and traction electricity.

[8] Assuming that CPI continues to be lower than RPI and both are positive.

[9] The access charge supplement will also be indexed by CPI.

2.11 We have included an RPI/CPI differential uplift factor in the assumptions that we have used to determine route and total revenue requirements for CP6, to take account of lower expected indexation increases during CP6. To do this we have followed the steps outlined below:

(a) Used forecasts of Network Rail's expenditure that are in 2017-18 prices[10].

(b) Applied an uplift factor to the expenditure assumptions, representing our forecast of the differential between RPI and CPI going forward of 1.0 percentage point per year using the following formula:

uplifted 2017-18 price = 2017-18 price x 1.01^t

where t represents the number of years elapsed since 2017-18, as illustrated in Table 2.1 below.

(c) The additional amount for the uplift was included as a separate line in our expenditure and revenue requirement tables, i.e. we have not adjusted other numbers in any PR18 document for this differential, apart from total expenditure and the revenue requirements.

Table 2.1 – Simple illustration of RPI/CPI differential uplift to 2017-18 prices[11]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
2017-18 prices before uplift	n/a	n/a	100	100	100	100	100
Uplift factor	1.00	1.01	1.02	1.03	1.04	1.05	1.06
Uplifted 2017-18 prices	n/a	n/a	102	103	104	105	106

Presentation of revenue requirements in cash prices

2.12 We have also determined revenue requirements for Great Britain, England & Wales and Scotland for CP6 in cash (nominal) prices that include the effects of forecast CPI inflation. This is important, because the funding totals in the governments' Statements of Funds Available (SoFAs) are stated in cash prices.

2.13 To do this, we have applied a CPI inflation forecast to the revenue requirements we have determined in uplifted 2017-18 prices. A simple illustration of the methodology we have used is provided in Table 2.2 below.

[10] In Network Rail's SBPs, income and expenditure was presented in 2017-18 prices but included an incremental input/real price effect factor of 0.5 percentage points, which Network Rail said represented cost 'headwinds'. In our final determination, we do not make explicit input price assumptions but have taken different high-level views to Network Rail's view on net efficiency in its SBPs. Therefore, it is no longer clear how much of this factor is included in our final determination.

[11] This is a simplified example and includes the effect of compounding.

Table 2.2 – Simple illustration of applying forecast CPI inflation to obtain revenue requirements in cash prices[12]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Uplifted 2017-18 prices	n/a	n/a	102	103	104	105	106
Forecast inflation factor	1.00	1.02	1.04	1.06	1.08	1.10	1.13
Forecast cash prices	n/a	n/a	106	109	112	116	120

Applying switch from RPI to CPI to track access charge indexation

2.14 As noted in paragraph 2.3, we have decided that the inflation measure for the indexation of track access charges in CP6 will be CPI instead of RPI, and this is reflected in our decision on changes to track and station access agreements. The implementation of this decision will take place by updating the indexation provisions in the track access contracts to refer to CPI instead of RPI where appropriate.

2.15 We have also decided that there should be an uplift to the revenue requirement values determined in 2017-18 prices, so that the total amount of cash recovered by Network Rail during CP6 is (all other things being equal) the same as if RPI were to be used. This will mean there is a limited direct impact on Network Rail of our decision to switch from RPI to CPI indexation for CP6.

Variable charges (VUC and EAUC)

2.16 The yearly VUCs and EAUCs will be indexed by CPI. Also, in broadly the same way that we are adjusting Network Rail's expenditure assumptions for the RPI/CPI differential, we will also adjust VUCs and EAUCs for franchised and open access operators.

2.17 However, we have separately announced proposals to cap VUCs and EAUCs for freight and charter operators. Reflecting this, there will be no upward adjustment to these VUCs and EAUCs for the RPI/CPI differential at the start of CP6 for these operators. The charges will be indexed to CPI each year.

2.18 Network Rail will be held neutral under this decision because FTACs will be slightly higher than they would have been if we had applied an upward adjustment to these variable charges for the start of CP6. The approach to implementing the switch from RPI to CPI indexation is explained in more detail in our supplementary document, an Overview of charges and incentives decisions.

[12] This is a simplified example and includes the effect of compounding.

- the most appropriate allocation of resources across Network Rail;
- the need to support a route level approach for CP6, so that for example the route is incentivised to manage risks effectively;
- the need to maintain the integrity of route financial settlements;
- the need to manage risk at the right level, taking advantage of risk pooling where appropriate, e.g. for high impact low probability (HILP) events;
- the limits on budgetary flexibility that will apply to Network Rail following its reclassification. These limits are summarised in Annex C;
- the potential disruption and efficiency impacts associated with short notice re-planning of activities;
- the need for transparency on operational and financial performance; and
- the non-indexation of network grants in CP6, and our decision to switch from RPI to CPI for inflation indexation of track access charges.

3.13 In our second consultation on the financial framework, we discussed three broad approaches for financial risk management. After considering responses to our financial framework documents and the CEPA report on financial risk[14], we have decided that we will use the hybrid approach we referred to, under which GPF[15] funding would be held at the centre. Route settlements would include route-controlled risk funding and contingent asset management funding as shown in Table 3.1.

3.14 In its strategic business plans (SBPs), Network Rail included a £2,595m (in 2017-18 prices) contingency fund (GPF) to enable it to manage risk. Of the £2,595m, £660m was to be allocated to the routes, and £1,935m was to be held corporately at a portfolio level[16]. None of the fund was committed for use upfront; it would be used if risks materialised. If routes needed additional contingency, they could bid for funding from the corporately held part of the GPF.

3.15 We agreed with Network Rail's total proposed funding for Great Britain of £2,595m (in 2017-18 prices). Proposed funding in England & Wales was £2,311m (in 2017-18 prices) and in Scotland was £284m (in 2017-18 prices). However, our final determination is that the balance between risk funding held in the routes and the centre should be different.

[14] We commissioned a report from CEPA on Network Rail's approach to financial risk management in its SBPs (see associated document 5 in Annex A).

[15] In Network Rail's submissions to us in PR18, it has tended to describe amounts of money for risk funding as being the Group Portfolio Fund (GPF). In our final determination, we only refer to GPF in the context of centrally-held risk funding.

[16] £60m was allocated to the Scotland route, with £224m held corporately at the centre but ring-fenced for Scotland, reflecting that its funding arrangements are separate from England & Wales.

3.16 This decision reflects our broad view that funding for risks such as those associated with severe weather events should be held at the centre, and funding for other risks such as inflation, should be held at a route level. We consider that this approach should achieve an appropriate balance between the factors we outline in paragraph 3.10.

3.17 Deciding on the balance between the amount of risk funding to be held at route level and at the centre is to some extent a matter of judgement. We have decided that half of the balance that Network Rail proposed to hold in the centre should be moved to the routes as summarised in Table 3.1.

3.18 In our draft determination we did not indicate how much of the revenue requirement for the Scotland route should be held in the centre compared to the route. Given there are separate funding arrangements for Scotland and that risk funding for Scotland will be ring-fenced from the amounts for the England & Wales routes, we have decided that all the risk funding for Scotland should be held at the route as that would be more transparent. However, some of this risk funding could be required for financial risks that materialise in central functions and are allocated to Scotland.

3.19 These risk funding provisions for CP6 should allow Network Rail to manage financial risks that cannot be covered by insurance arrangements with commercial insurers, Network Rail's captive insurer, or self-insurance arrangements. The costs of insurance are included in routes' operating costs.

Table 3.1 – Final determination of risk funding allocations

£m, 2017-18 prices	Route-controlled risk funds	Contingent asset management	Centrally-controlled GPF	Total
England & Wales				
Network Rail's SBP proposal	600	0	1,711	2,311
Final determination	600	856	856	2,311
Scotland				
Network Rail's SBP proposal	60	0	224	284
Final determination		284		284

Contingent asset management funding

3.20 In our draft determination, we said that we would include an amount of contingent renewals funding in the revenue requirement settlements for each geographical route. This was to allow routes to have some asset renewal plans that could be adjusted or deferred if financial risks materialised, without resulting in undue inefficiencies, performance impacts, or disruption to the supply chain. So, this funding will be programmed into route plans as expenditure on projects that can be cancelled or delayed relatively easily (and without safety consequences) if risks do materialise.

3.21 We also expect routes to identify, in advance of CP6, the asset condition and performance improvements that the contingent asset management expenditure would support if risks do not materialise. These improvements would not be included in the initial scorecard targets. However, they would provide additional evidence to allow performance targets to be raised in the event that the risks facing Network Rail moderate, allowing additional work to be delivered.

3.22 This change would mean routes play a larger role in the management of this part of the risk funding than Network Rail originally envisaged. Although we would expect Network Rail to retain some central controls over this aspect of route expenditure (as it covers some company-wide risks), this would provide a clearer basis for understanding what the routes could deliver, where risk funds are available to be released.

3.23 We have discussed the treatment of contingent renewals with Network Rail and the governments and decided to treat the amounts concerned as 'contingent asset management funding'. The main effect of this change is that the funding is treated as revenue expenditure (instead of capital expenditure) in our determination. This better allows the funding to be used for a variety of purposes to manage financial risk. For example, through opex solutions to train performance issues. If a capex solution is required, there may need to be a transfer from opex to capex under the budgetary flexibility requirements.

3.24 The reclassification of contingent renewals funding to contingent asset management funding has not affected our view of the governance and managing change requirements that should apply, and which are explained in the following sections of this chapter.

3.25 Network Rail accidently excluded between £250m and £300m of CSAC income from the England & Wales SBP. In our PR18 draft determination financial framework supplementary document[17] we noted that DfT had provided a provisional view that the CSAC income should be available to Network Rail in CP6 to deliver HLOS outputs, but that it had not finalised its position.

3.26 DfT has confirmed that Network Rail should have identified these funds ahead of the publication of the SoFA. DfT has also confirmed that it does not intend to adjust its maximum grant figure, as included in the SoFA. However, given the manner in which this issue has arisen, DfT also notified us that it may reclaim an amount equal to the

[17] This is available here.

CSAC funding from Network Rail for use on other transport priorities, should the need arise.

3.27 DfT in its response to our draft determination said that the CSAC income should be allocated to 'contingent renewals' (now called contingent asset management funding) on the basis that it may be recalled and re-allocated to other areas of transport expenditure. This would have meant including the CSAC money in the OSTI section of the England & Wales revenue requirement calculation and the contingent asset management funding section of the calculation. Overall, these two amounts would have netted off to zero.

3.28 Given the uncertainty over how much of this income Network Rail will be able to spend, we have decided not to include the CSAC income in the England & Wales revenue requirement calculation, as this would have overly complicated the risk funding process. In CP6, if the CSAC income that Network Rail will receive is not provided to the UK Government and it becomes available to Network Rail to spend, it should be treated as additional risk funding.

3.29 As part of the targeted updates to its SBPs, Network Rail has proposed a revised allocation of contingent asset management funding across routes. We have accepted Network Rail's proposal as reflected in our route settlements.

3.30 Risk funding has been provided to efficiently manage risks during CP6 but if some money is not required for this purpose, e.g. if Network Rail was outperforming our determination then it can be used for other purposes.

Governance of risk funding

3.31 In the following paragraphs, we set out our views on the governance of risk funding[18]. This is important as Network Rail needs to manage risk efficiently and achieve the right balance between:

- the integrity of the route settlements and accountability at route level; and
- managing its business for the benefit of stakeholders across England & Wales and Scotland.

3.32 Therefore, financial risk funding in CP6 needs to be subject to:

- appropriate governance by Network Rail so that:
  - good business practice is upheld;

[18] This section only covers the risk funding provided to Network Rail. It does not cover the industry risk and fee funds. In this section of the document, routes include the geographical routes, FNPO and SO.

- management approaches are appropriately co-ordinated across the business; and
- strategic issues can be effectively managed;

and

- regulatory requirements for managing change to underpin the integrity of route level settlements in relation to:
  - the use of funding; and
  - any transfer of funding away from a route.

3.33 We consider that the following principles should apply to the governance of risk funding included in our determination:

(a) It should allow financial risk to be efficiently managed at both route level, and across Network Rail's wider business.

(b) It should be consistent with the overall funding/regulatory arrangements for CP6, e.g. the Managing Change Policy document and any framework agreements between Network Rail and the governments, including limits on budgetary flexibility.

(c) The approach should support the integrity of the route settlements, and support increasing route independence/devolution.

(d) The approach should recognise that there are separate funding provisions for Scotland and a separate determination.

(e) The risk management process should involve route managing directors (RMDs) as much as possible in decisions affecting routes and in particular their own route.

(f) It should make use of Network Rail's business planning framework. Network Rail should keep this under review to make sure that it remains appropriate for the revised funding structure and route level regulatory approach for CP6, whilst guarding against unnecessary bureaucracy.

(g) It should appropriately balance both the views of individual routes with a holistic view of the optimum solution for Network Rail as a whole. This should support the principle in (c) above but also recognise that Network Rail is one company. The decision process for this should be transparent.

(h) The views of funders and stakeholders should be appropriately taken into account through appropriate consultation.

(i) The use of any risk funding and in particular centrally-held GPF needs to be transparent and timely reported in Network Rail's regulatory financial statements and monthly finance packs, in accordance with the RAGs.

3.34 We consider that the principles outlined above are relevant to both England & Wales and Scotland, but they might vary in practice, with respect to the separate determination for Scotland. We also consider that they are consistent with the terms of the proposed licence condition for CP6 that would set out requirements in respect of the structure of the licence holder[19].

3.35 Network Rail's proposals on the governance of risk funding were included in a paper that it submitted to us. Network Rail broadly agreed with our principles and it will incorporate them in its business planning guidelines.

3.36 Network Rail has identified how funding could be reallocated between routes and the centre to assist with the process of making sure that GPF funding is released into route plans as soon as possible during CP6, so that it can use that funding to deliver additional outputs. Any such changes will be subject to our Managing Change Policy.

3.37 Table 3.2 summarises our views on the governance arrangements around the use of route-controlled risk funding, contingent asset management funding, and centrally-held GPF funds.

Table 3.2 – Summary of financial risk governance arrangements

Funding	Managing change requirements
Route-controlled risk funding	Route's decision to spend on: crystalised risk costs; and other expenditure (if risks have not crystalised). Route must notify centre of spending intentions.
Contingent asset management funding (not applicable to FNPO or SO)	Route's decision to spend. Route must agree with centre on major spending intentions.
Centrally-held GPF	Centre to decide with involvement of routes in governance process.

[19] See proposed condition 2 in the consultation on draft Network Rail network licence, July 2018.

Managing change to route financial settlements

Background

3.38 ORR's Managing Change Policy will underpin the integrity of route[20] financial settlements for CP6[21]. However, the policy is also intended to be flexible enough to allow Network Rail to:

- respond, if necessary, to significant changes to business conditions after the start of CP6; and
- manage within the overall budgetary flexibility limits applicable to it as an arm's length public sector body (see summary in Annex C).

3.39 The Managing Changing Policy explains the procedures that apply for Level I, II and III changes. It applies to each route and each year.

3.40 Financially, the starting reference points are the income and expenditure values set out in our final determination of the revenue requirements for each route and each year.

3.41 When Network Rail is producing its yearly plans and budgets it will need to consider the requirements of our Managing Change Policy. Routes will produce their plans for each year of CP6 as part of Network Rail's planning cycle in advance of the year concerned. The route's plan will set out how much of its funding including the route-controlled and contingent asset management funding it is committing to spend in various years, and what that expenditure will deliver and how much it is retaining to cover risks.

3.42 The plan will be subject to sign-off at Network Rail's executive committee level. The route is then responsible for controlling its budgetary risks. For example, through capex delivery management and use of its risk funding budget where necessary.

3.43 Our proposed network licence includes requirements for managing change[22]. In our Managing Change Policy we expect to set out three proposed levels of change and associated requirements:

(a) Level I and above – a change relative to the PR18 settlements.
This will require transparent reporting of the change.

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[20] In this section of the document, routes include the geographical routes, FNPO and SO.

[21] As noted above, risk funding for Scotland is ring fenced from England & Wales. However, we expect that use of the risk funds would still be subject to sign off as part of the route's annual business planning process, and that use of these funds would be subject to our Managing Change Policy.

[22] See proposed condition 3 in the consultation on draft Network Rail network licence, July 2018.

(b) Level II and above – a material change relative to the PR18 settlements. This will require Network Rail to engage with ORR on assurance, governance, and transparency.

(c) Level III – a fundamental change relative to the PR18 settlements. ORR will publish an opinion on the intended change and, in exceptional circumstances, direct that the change should not be made.

3.44 In Table 4.2 of our PR18 financial framework draft determination, we set out our interim views on the managing change requirements for route financial settlements in CP6. An extract of that table is reproduced below.

Table 3.3. – Extract from draft determination table 4.2 (managing change requirements)

Funding	Managing change requirements
Core route budget	Level III change if centre seeks to: veto/defer spending transfer funding away from route
Route-controlled risk funding	Level III change if centre seeks to: veto/defer route spending decision transfer funding away from route
Contingent renewals (not applicable to FNPO or SO)	Level II change if centre seeks to: veto/defer route spending decision transfer funding away from route
Centrally-held GPF	Level I change

3.45 We consider that, in broad terms, the interim views in our draft determination remain valid. However, following discussions with stakeholders, we are now in a position to provide some additional information on our views.

3.46 We consider that managing change requirements should make use of Network Rail's existing business management processes wherever possible. However, these processes might need to be adapted to ensure that managing change issues are transparent and clearly reported.

3.47 For the avoidance of doubt the following actions would not, of themselves, trigger managing change requirements (although they might be subject to Network Rail's internal planning review or governance processes):

(a) Changes made by a route to its own budgetary allocations amongst operations, support, maintenance and renewals activities.

(b) A decision by a route to make use of its own route-controlled risk funding.

(c) A decision by a route to:

- commit contingent asset management funding to opex or capex[23] network sustainability expenditure; or
- refrain from committing contingent asset management funding at any given time, in order to manage route level financial risks.

3.48 We have provided some examples of how Level I, II and III changes might work in practice below. Note that if a Route Managing Director agrees with the proposed change, then the change 'de-escalates' to a Level I change.

Centrally-held group portfolio fund

3.49 The GPF for CP6 will be made up of contributions from route budgets, but its main purpose would be to allow the centre to manage the impact of wider/systemic financial risks. We expect that the Managing Change Policy will set out that the use of the centrally-held GPF in CP6 should constitute a Level I change.

Illustrative example

3.50 The following is provided as an example of a Level I change involving the use of the GPF:

(a) Network Rail's executive decides to release centrally-held GPF funding to:

- one or more routes to fund escalating input prices; or
- a route for a capex project.

(b) Network Rail identifies that the decision above constitutes a Level I change and so it:

- informs ORR of the decision through normal liaison meetings;
- formally records the use of GPF funding, for example, through the regulatory financial statements; and

[23] Use for capital expenditure may require a reclassification of the amount concerned from resource to capital expenditure for public sector finance purposes.

– refers to the release of GPF funding in the route/overall commentaries in its regulatory accounting submissions.

Contingent asset management funding and route-controlled risk funding

3.51 Our determination shows contingent asset management funding and route-controlled risk funding as separate parts of each route's revenue requirement. Network Rail expects that the routes' annually updated business plans will set out, for the following year, how much of its contingent asset management budget it is committing to asset management activities at that stage, and how much will be treated as risk funding.

3.52 Given the reality of how budgets are set at a granular level and how expenditure decisions are taken, the use of different types of risk funding compared to changes in core expenditure may become unclear. For example, if expenditure on HR is £5m more than we assumed, is that because of the use of risk funding to cover a risk that has materialised or is it a transfer from the IT budget?

3.53 For the purposes of managing change requirements, we consider that:

- one or more transfers of budget away from a route for a given year of an amount, in total, up to the amount of contingent asset management funding specified in our determination would constitute a Level II change; and
- one or more transfers of budget away from a route for a given year of an amount, in total, greater than the amount of contingent asset management funding specified in our determination would constitute a Level III change.

Illustrative example

3.54 The following is provided as an example of the process to be followed under a Level II change affecting a route's contingent asset management funding:

(a) Network Rail's executive decides to transfer a budgetary amount from one route to another route. The change has not been agreed by the Route Managing Director.

(b) Network Rail identifies that the decision above constitutes a Level II change because on its own, or together with other transfers from the route, it is an amount up to the amount of contingent asset management funding specified for the year concerned in our determination.

(c) At the earliest reasonable opportunity Network Rail:

- informs ORR of its intention using an agreed approach, and through meetings/[24]correspondence, records that this has happened;
- identifies any impacts of the change, e.g. to asset sustainability, and any stakeholder engagement that has taken place;
- formally records the use of GPF funding, for example, through the regulatory financial statements or a managing change log; and
- refers to the transfer in the route/overall commentaries in its regulatory accounting submissions.

Core route OSMR budget

3.55 A similar process, to the one to be used for contingent asset management funding and route-controlled risk funding, would apply for the core OSMR budget for a route. Where a managing change requirement is triggered, it would be at Level III.

Illustrative example

3.56 The following is provided as an example of a Level III change affecting core OSMR budget for a route:

(a) Network Rail's executive decides to transfer a budgetary amount from one route to another route. The change has not been agreed by the Route Managing Director.

(b) Network Rail identifies that the decision above constitutes a Level III change because on its own, or together with other transfers from the route, it is an amount in excess of the amount of route-controlled risk funding and contingent asset management funding specified for the year concerned in our determination.

(c) At the earliest reasonable opportunity Network Rail:

- informs ORR of its intention through an agreed approach, and through meetings[25]/correspondence, records that this has happened; and
- identifies any impacts of the change, e.g. to asset sustainability, and any stakeholder engagement that has taken place.

(d) ORR provides its opinion on the intended transfer in correspondence to Network Rail and might exceptionally direct that the transfer should not be

[24] Possibly including meeting with ORR's route team for the route concerned.

[25] Possibly including meeting with ORR's route team for the route concerned.

carried out, or may be carried out subject to compliance with specified conditions.

(e) Subject to the opinion provided by ORR, Network Rail:

- formally records the use of GPF funding, for example, through the regulatory financial statements or a managing change log; and
- refers to the transfer in the route/overall commentaries in its regulatory accounting submissions.

3.57 Given the starting point for the financial baselines is the income and expenditure values in our route settlements we expect Network Rail in its business planning process to act in a way that is consistent with the managing policy from the date of the publication of the Managing Change Policy.

Financial outperformance and rebate payments

Financial outperformance

3.58 We refer to instances when Network Rail spends less delivering outputs than was assumed necessary in our determination as 'financial outperformance'.

3.59 In our draft determination, we noted that in CP5, Network Rail has only been allowed to apply funds freed-up by financial outperformance to: pay down debt; fund research and development projects; and fund expenditure to reduce future costs or improve outputs.

3.60 Network Rail's funding structure for CP6 will be significantly different than for CP5. It will have no borrowing facility and it will be subject to public sector financial requirements (albeit with some variances reflecting the nature of its regulated business) including the Managing Public Money[26] guidance.

3.61 Given the way route governance, risk funding/governance and managing change will work in CP6, we have decided that we should simplify the process for dealing with outperformance but retain the key requirement that stakeholders need to be consulted before money is spent on additional network related projects.

3.62 Therefore, we have decided that routes should be allowed to retain efficient savings against baseline expenditure (i.e. financial outperformance) and use the savings for other network-related projects[27] subject to:

[26] https://www.gov.uk/government/publications/managing-public-money

[27] Network-related projects means projects on Network Rail's network, for example, renewals and enhancements.

- discussions with its stakeholders;
- overall restrictions on budgetary flexibility; and
- efficiency and financial performance reporting requirements under the CP6 RAGs.

3.63 This is consistent with our approach to managing change. We consider that underspends at route level should be treated in the same way as contingent asset management funding, meaning that the funds concerned would be covered by Level II managing change requirements. This helps to ensure that a route that is forecasting an underspend for a year, is not incentivised to spend money in the run up to the end of the year, to avoid underspending and losing funding[28].

3.64 We also note that the Managing Change Policy is applicable in the event of any changes made to Network Rail's overall funding over CP6, for example, if an enhancement project leads to additional maintenance costs. We have not considered this point in detail here in light of the five-year funding period, which provides funding certainty and forms a key part of Network Rail's financial framework, particularly in supporting the realisation of the efficiency improvements.

Rebate payments to governments

3.65 Our policy on rebate payments by Network Rail to governments in CP5 has been that they should only be made in exceptional circumstances and should not create risks to the financial sustainability of Network Rail's business.

3.66 The current rebate mechanism is contained in the CP5 track access contracts for franchised passenger operators. It provides for Network Rail to rebate income that it does not require in order to discharge its obligations under its network licence and any contracts to which it is a party to. ORR's approval is required before a rebate is paid. In broad terms, the rebate to franchised passenger operators flows through to the governments under the commercial terms of franchise arrangements.

3.67 We said in our draft determination that the budgetary rules that will apply to Network Rail in CP6 mean that we do not need to separately consider provisions around rebate payments to the governments. This was because, subject to the budgetary flexibility it has been allowed, funding that is not spent by Network Rail in a particular year in CP6 is liable to be reclaimed by DfT/Transport Scotland.

3.68 However, in our July 2018 consultation on changes to access contracts[29] we said that: "although the rebate arrangements can be removed (with the associated term in

[28] There is a risk that annualised funding may nevertheless drive spending towards the end of financial years, as Network Rail's confidence grows that risks identified for the year in question have not emerged.

[29] Implementing PR18: consultation on changes to access contracts, July 2018, available here.

the principal formula for track access charges), we have retained the current text in the draft network licence for now".

3.69 Given that it may be useful for Network Rail to make rebate payments using the current rebate mechanism, we now intend to keep the rebate mechanism in place. As in CP5, payments should only be made in exceptional circumstances and should not create risks to the financial sustainability of Network Rail's business.

Governments' budgetary processes

Background

3.70 Following Network Rail's reclassification to the public sector, the CP6 funding regime represents a significant departure from Network Rail's funding in CP5. This section summarises how the governments' budgetary processes interact with our PR18 financial determination.

3.71 Following reclassification, government budgeting for Network Rail's expenditure operated under the Annually Managed Expenditure (AME) regime during the remainder of CP5. For CP6, Network Rail's budget will fall under the Resource Departmental Expenditure Limit (RDEL) and Capital Departmental Expenditure Limit (CDEL) rules that apply to DfT's own budget. Unlike under AME, the governments have limited flexibility to make changes to RDEL and CDEL.

3.72 The flexibilities Network Rail has been provided with are set out in DfT's response to our PR18 second financial framework consultation document. These are summarised in Annex C.

3.73 We set out in Annex E the income that we have determined Network Rail should receive in CP6 through a combination of yearly access charges and government grants. Annex E1 shows these amounts in 2017-18 prices. The access charges will be uplifted by CPI each year but the government grants are fixed in cash prices (the government grants in cash prices are shown in Annex E2).

3.74 As we explain in chapter 7, there are restrictions in place that mean if the governments wanted to reduce grant payments, FTAC would increase (the grant dilution clause).

3.75 However, we recognise that as workbanks move there will be some changes to Network Rail's expenditure profile, and we are content that grant payments could change from year to year for such matters with Network Rail's agreement. We expect this flexibility to be set out in the letters of grant with the governments.

Interaction with enhancements

3.76 Network Rail's funding arrangements for enhancements in England & Wales will change for CP6. DfT's own budget will include funding for enhancements. The precise funding arrangements for enhancement projects are still under discussion between DfT and Network Rail and may need to flex to reflect the requirements of individual projects. We expect that funds will only be released to Network Rail when projects have reached a certain stage of maturity - this is known as the 'pipeline' approach. A similar pipeline approach will be used in Scotland.

3.77 Because enhancements and renewals both contribute to CDEL (i.e. for budgetary flexibility purposes), over/underspend on enhancements could affect available annual funding for renewals in a year. However, over the five-year period they would adjust, so the original renewals and enhancements funding was maintained (subject, for example, to the 10% budget flexibility limit).

3.78 The budgetary flexibility rules apply to total annual renewals and enhancements expenditure. In our final determination, we have set out forecasts of renewals expenditure that are included in the charges income and network grants that Network Rail will receive in CP6.

3.79 However, there is more uncertainty with the profile of enhancement expenditure as it has not yet been decided. This is because the governments approach to enhancements funding is changing for CP6 with the introduction of the England & Wales, and Scotland pipeline approaches mentioned above. Network Rail is discussing how these arrangements will work in practice with the governments. One of the issues is how to deal with changes to enhancement expenditure.

3.80 The 2019-20 enhancement programmes and funding have not yet been agreed with governments in both England and Wales, and in Scotland. This is important because enhancements can affect the core CP6 renewals programme even though they are outside of the scope of PR18. For example, a signalling enhancement may change the signalling renewals that need to be done.

Budgetary timetable

3.81 As sole shareholder, DfT has a number of rights and obligations under its framework agreement with Network Rail. This includes the requirement that DfT approve Network Rail's annual budgets. The ORR has no role in the budget process, which is a matter for the governments and Network Rail.

3.82 Network Rail will share with us its draft detailed CP6 delivery plans including supporting business plans in December 2018. These business plans will translate our PR18 requirements into internal five-year budgets for England & Wales and Scotland. Network Rail's business plans will be updated annually. Any material changes to the business plans will be subject to change control through our managing change process.

3.83 Acting as the shareholder, DfT will approve Network Rail's budget in late January / early February and is due to approve Network Rail's internal business plans for England & Wales and Scotland in March 2019.

3.84 We will discuss with the governments and Network Rail how the budget flexibility rules that the company will be subject to will work in practice. This includes the link to enhancement expenditure where the profile of spend will depend on decisions taken by the governments under their pipeline approaches.

4. Decisions on other financial issues

Introduction

4.1 This chapter confirms our decisions on a number of financial issues that were set out in our draft determination. These cover:

- setting and updating route level RAB balances (including for the SO);
- re-categorisation of some OSTI items;
- the treatment of asset disposal proceeds;
- early start provisions;
- incentives relating to corporation tax and VAT adjustments;
- treatment of Schedule 4 and 8 costs;
- treatment of traction electricity; and
- the opex memorandum account.

4.2 All the decisions we have made or confirmed below have been taken after considering responses to our previous financial framework documents and our draft determination. We provide more detail on the responses we have received and our views on them in our document: ‘Consultation on the draft determination – summary of comments and our response’. The majority of respondents agreed with the approach we set out in our draft determination. In this chapter, we comment on responses where they do not agree with our views in our draft determination.

Setting and updating RAB balances for CP6

4.3 As noted in our draft determination, Network Rail’s RAB has not been used in the calculation of its revenue requirements for CP6. However, we have decided to maintain a RAB value for each geographical route and for the system operator, together with total values for England & Wales and Scotland to:

- provide a valuation of Network Rail’s assets;
- enhance understanding of the long-term financing of the network;
- facilitate comparability with other regulated network businesses; and
- support the valuation of assets for disposal or transfer purposes.

4.4 We have decided not to establish a RAB value for the FNPO because it has few tangible assets of its own.

RAB balances for geographical routes and SO

4.5 We have determined provisional opening geographical route RAB values (as at 1 April 2019) for CP6 based on:

- RAB balances included in Statement 2a of Network Rail's regulatory financial statements as at 31 March 2018; and
- forecast information included in accounting updates provided to us by Network Rail.

4.6 Our determination of the provisional opening RAB balance for each geographical route is set out in the relevant settlement document together with an indicative forecast value for each year of CP6 (see section below on updating RAB balances during CP6). Provisional opening values will be adjusted in Network Rail's 2019-20 regulatory accounts to reflect actual expenditure in 2018-19 in accordance with our RAGs.

4.7 We have decided to establish and maintain a RAB balance for the SO in CP6 because it has assets of its own. Our decision, as set out in our draft determination is to set the opening RAB balance for the SO at a value of £80m (in 2017-18 prices).

4.8 We have decided to establish the opening SO RAB balance by reducing the opening RAB balance for each geographical route by the same proportion of the £80m value as its RAB bears to Network Rail's total RAB. This includes a deduction from the Scotland RAB as the SO's functions cover the whole of Great Britain. These deductions are included in the geographical route RAB balances set out in the settlement documents.

Updating RAB balances during CP6

4.9 We are confirming our decision to use the following steps to update RAB balances in CP6:

(a) Inflate the value at the start of each year using CPI indexation.

(b) Add capital expenditure (renewals and enhancements[30]) during the year.

(c) Deduct renewals funding included in our revenue determination, at the end of the year, as a proxy for amortisation[31].

[30] Only enhancements that are not grant funded. At the moment, we are assuming that all DfT and Transport Scotland enhancements in CP6 will be grant funded.

[31] In CP5, we used long-run average efficient renewals expenditure as a proxy for amortisation.

4.10 Under this approach, in real terms, RAB values going forward should remain broadly in line with their opening values during CP6 because additions and deductions each year should broadly be in line with each other.

4.11 We will include detailed provisions setting out how RAB values will be rolled forward from year to year in the RAGs that we will publish for CP6.

RAB roll forward incentive / Spend to save

4.12 We are confirming our decision not to apply the RAB roll forward incentive in CP6 for the reasons set out in our draft determination. However, we will revisit the issue if Network Rail, or a part of it, were to be privately financed at any time or other changes to Network Rail's funding structure take place.

4.13 We are also confirming our decision to discontinue the spend to save mechanism in CP6, but we would consider reintroducing it if Network Rail, or a part of it, were at some point to be privately financed or its funding structure changed.

Other Single Till Income category changes

4.14 We are confirming our decision that only the following items will be classified as OSTI in CP6:

- qualifying expenditure recharges for managed stations;
- lease income for stations owned by Network Rail but operated by train operators;
- depot charges;
- property rental;
- facility charge income - for example relating to network enhancements commissioned by train operators and Network Rail;
- Crossrail Supplemental Access Charges (CSAC) income;
- property sales (net of the costs of selling the asset); and
- any other income not derived from regulated charges.

4.15 Income from the following categories will now be recovered through the net revenue requirements instead of being presented as being included in OSTI and netted off when calculating the net revenue requirement:

- open access operator charges;
- long-term charges for managed stations; and
- long-term charges for TOC operated stations.

4.16 This change will have no overall impact on revenue requirements and charges because the reduction in forecast OSTI income will be offset by a commensurate increase in Network Rail’s net revenue requirement[32].

Treatment of asset disposal proceeds

4.17 Our proposed approach to asset disposals is to:

- deduct the proceeds of a sale from the RAB; and
- include forecast sales proceeds in OSTI.

4.18 Network Rail’s response to our draft determination mentioned some issues that it had with our proposed approach to asset disposals. It has raised these issues with us before and we have discussed them with Network Rail on a number of occasions. More details of this can be found in our financial framework conclusions document.

4.19 Network Rail has identified that the combination of the two policies set out above could reduce the incentives on Network Rail to make asset disposals. We recognise this point but consider that it is only relevant if Network Rail was privately financed. Instead, as a public sector body, it would have no effect on Network Rail’s incentives.

4.20 This is because Network Rail is not incentivised to have a higher RAB (unlike other regulated companies that are in the private sector). Instead, the key incentive on Network Rail in this area, is that asset sales are included in our financial performance measure and hence they will affect scorecard performance and ultimately Network Rail’s management and employee incentive plans.

4.21 We consider that Network Rail’s proposed approach that it set out in its response to our draft determination, would overly complicate the asset disposal process, would be less transparent than our proposed approach and provide no benefits as incentives would not be improved.

4.22 Therefore, given Network Rail is a public sector body we have decided to use our proposed approach set out above for asset disposals. However, we will reconsider this approach if there are changes to Network Rail’s status or funding arrangements in the future. This is a similar position to some of our other decisions on other financial policies set out below.

[32] For example, if the gross revenue requirement is £100 and OSTI is £10 including £4 of open access charges and long-term station charges and £6 of property rental income, the net revenue requirement would previously have been presented as £90, representing the amount to be recovered through other charges. After the change of presentation, the net revenue requirement is £94 (£100 - £6), which will be recovered through charges including open access charges and long-term station charges.

4.23 Network Rail also stated in its response that in calculating revenue requirements we should not include both the proceeds from the sale of an asset and the on-going rental income. We discussed this issue with Network Rail's property team in our review of its property income forecasts and they said that there was no double-counting. This issue is complicated as specific assets are not usually included in the property sales forecast, and timing is a key issue, as a property may be sold towards the end of a control period. So even if it was sold, it would have earned rental income for most of the control period. Therefore, judgement is needed. Overall we consider that Network Rail had made a reasonable assumption on the double-counting issue.

4.24 Our consultants considered Network Rail's property income forecasts and think Network Rail has underestimated achievable income levels, particularly development and sales income. As a result, we have assumed that Network Rail can in the round deliver £55m more property income in Great Britain but have not specified how it should do this. Therefore, this does not change our view that there is no double-counting in our forecast.

4.25 After considering responses to our draft determination, we are confirming our decisions that:

(a) Forecast disposal proceeds will be treated as OSTI in our determination of revenue requirements.

(b) A common RAB adjustment policy should apply to core and non-core disposals by Network Rail in CP6.

(c) RAB deductions should be valued as an amount equal to actual sales proceeds because of the objectivity/transparency associated with this approach (but subject to the possibility of bespoke treatment in exceptional circumstances[33]).

(d) Adjustments should be applied to the RAB for the route in which the asset is located (and to Network Rail's England & Wales, Scotland, and Great Britain RAB values).

4.26 This approach will mean that assets which no longer form part of the business will not be included in the RAB.

4.27 Transfers of assets between routes should be recorded using the scaled replacement cost basis proposed by Network Rail and referred to in our draft determination. This is because no sales proceeds value would be available and the total RAB value for the business would not change.

[33] An example of bespoke treatment might be the disposal of assets by Network Rail to Transport for Wales as part of the process of devolving responsibility for the core valley lines. In this case we have referred to a depreciated replacement value as a starting point for ascertaining a value for the assets concerned.

Final decisions on other financial issues

4.28 We are also confirming the decisions listed below:

(a) Whilst we expect Network Rail to be fully prepared to implement its SBPs from the outset of the CP6 period, the revised funding arrangements following re-classification and Network Rail's financial performance in CP5, mean that an early start policy would not be possible in relation to PR18. Therefore, we have not included an early start policy in the PR18 process. However, we will reconsider the need for an early start approach, if there are changes to Network Rail's status or funding arrangements in the future.

(b) We will not include provisions in CP6 for incentive adjustments in respect of:

- material VAT rebates; and
- corporation tax credits and enhanced capital allowances.

This reflects the broadly neutral VAT position of Network Rail's business and the separate funding of Network Rail's corporation tax liabilities in CP6. We will reconsider the position in future if there are changes to Network Rail's status or funding arrangements[34].

(c) We have not made any changes to our previous treatment of Schedule 4 and Schedule 8 costs in our determination of CP6 revenue requirements, apart from the effect of switching to CPI indexation.

(d) We have not made any changes to our previous treatment of traction electricity[35] costs in our determination of CP6 revenue requirements, i.e. the non-Network Rail cost will be treated as a non-controllable cost.

(e) We will not use an opex memorandum account to log-up amounts during CP6 for remuneration at the next periodic review, because funding from DfT and Transport Scotland is fixed at the levels set out in the SoFAs. However, we would consider reintroducing an opex memorandum account if Network Rail, or a part of it, were at some point to be privately financed or its funding structure changed.

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[34] Our regulatory accounting guidelines will set out the treatment of any VAT rebates for the purpose of reporting financial performance and efficiency.

[35] Network Rail procures electricity for the railway under a long-term supply contract and the cost of the electricity used to power trains is then recharged (passed through) to train operators, increasingly on a metered basis. This is therefore a broadly neutral item for Network Rail. Network Rail does use some traction electricity for its own rail vehicles and stations and this is an operating cost of the route or central function concerned. Traction electricity is sometimes called EC4T.

Third party investment

4.29 Updated guidance for prospective investors in the railway has been available on our website[36] since spring 2018.

4.30 ORR and Network Rail are currently discussing the findings of Arup's review of the role of the risk funds in the current investment framework to assess whether they have acted as a barrier to entry to better understand the key issues and recommendations. Going forward, Network Rail will develop plans to act on any recommendations that come out of the report.

4.31 We are encouraging routes to pursue appropriate third party funding opportunities in CP6.

[36] http://orr.gov.uk/rail/investing-in-the-rail-network

5. Cost of capital and cost of debt

Introduction

5.1 This chapter sets out our decisions on weighted average cost of capital (WACC) and cost of debt values for Network Rail for CP6.

5.2 The cost of capital values that we have determined do not affect revenue requirements, track access charges, or network grant levels for CP6, but they are relevant for the following purposes:

- calculating the cost of capital for facility charges payable by third parties who have promoted enhancements financed by the governments through Network Rail;
- calculating what Network Rail's revenue requirements might be under a full WACC approach[37]; and
- providing a benchmark discount rate/internal rate of return for internal projects (and other economic decisions) by Network Rail in CP6.

5.3 The cost of debt that we determine also affects the Crossrail supplemental access charge (CSAC) income that Network Rail will receive in CP6.

5.4 We have decided not to produce illustrations of revenue requirements under a full WACC approach as part of our final determination. This is because given the other changes that would need to be made to the financial framework in this situation, the illustrations may be unhelpful.

5.5 All the decisions we have made or confirmed below have been taken after considering responses to our previous financial framework documents and our draft determination. We provide more detail on the responses we have received and our views on them in our document: 'Consultation on the draft determination – summary of comments and our response'. In this chapter, we comment on responses where they do not agree with the views in our draft determination.

Draft determination ranges for WACC and cost of debt

5.6 In our draft determination, we set out the ranges shown in Table 5.1 below for WACC and cost of debt for CP6, compared to CP5 values.

[37] Using a hypothetical cost of capital Network Rail might face if it were financed in the private sector (without government support) by a mix of debt and equity.

Table 5.1 – Draft determination values for WACC and cost of debt

	CP5 values	Network Rail ranges	Draft determination ranges
Vanilla WACC – real (RPI)	4.31%	2.8% to 3.4%	2.5% to 3.1%
Pre-tax WACC - real (RPI)	4.93%	3.4% to 4.2%	2.8% to 3.5%
Pre-tax cost of debt – real (RPI)	3.0%	1.4% to 1.8%	1.3% to 1.6%

5.7 Our draft determination ranges were lower than those put forward by Network Rail. We explained that Network Rail's values were based on analysis that had been completed some time ago and that we had considered more recent provisional views on cost of capital published by Ofwat[38] and Ofcom[39] relating to the water and telecoms sectors respectively.

Determination of values for Network Rail for CP6

5.8 We have determined three values for Network Rail for CP6:

(a) A real (CPI) vanilla weighted average cost of capital. This will allow us to calculate hypothetical revenue requirements under a full WACC approach.

(b) A real (CPI) pre-tax weighted average cost of capital. This would be used in the calculation of new facility charges in CP6 (if applicable), where the charge payer will fund the corporation tax cost associated with the equity component of the cost of finance.

(c) A real (RPI) pre-tax cost of debt. This will be used in the calculation of the CSAC paid by TfL to Network Rail in respect of infrastructure associated with Crossrail[40].

5.9 We have decided not to apply a further adjustment to the WACC ranges to reflect the fact that Network Rail's RAB value will be indexed by CPI instead of RPI in CP6, as we do not think that the complex calculations involved would be warranted, because

[38] Ofwat's PR19 provisional cost of debt was 1.3%, vanilla WACC was 2.4% and pre-tax WACC was 2.7%. To be comparable with our numbers for Network Rail you need to add back the 0.1% adjustment Ofwat applies for water retail margins, as that is not relevant for Network Rail, i.e. to be comparable to Network Rail Ofwat's cost of debt assumption would be 1.4%.

[39] Ofcom's Wholesale Local Access provisional (Openreach) cost of debt (in nominal prices) was 3.9%, vanilla WACC was 6.7% and pre-tax WACC was 7.9%. Ofcom's Wholesale Local Access provisional (Other) cost of debt (in nominal prices) was 4.0%, vanilla WACC was 7.6% and pre-tax WACC was 8.9%.

[40] The Crossrail track access option deed includes provision for payments by Crossrail, through Crossrail supplemental access charges (CSAC), to allow Network Rail to recover the costs relating to works for Crossrail that took place on its network. The costs will be recovered over the life of the assets concerned, and the CSAC's include a finance cost component.

Network Rail's RAB value will not be used in revenue requirement calculations in CP6. We will review this issue, if there are changes to Network Rail's status or funding arrangements in the future.

Grossing-up approach for pre-tax WACC calculation

5.10 We said in our draft determination that we would consider the two approaches available in respect of the formula for calculating a pre-tax WACC:

(a) using real values in the formula; and

(b) using nominal values in the formula and then deflating the result,

in each case to give a real pre-tax WACC.

5.11 Network Rail proposed a range for the hypothetical cost of capital it might face if it were financed in the private sector (i.e. without government support) based on analysis undertaken by Oxera. Oxera adopted the second of the above approaches to calculate the pre-tax WACC (the real vanilla WACC was converted into a nominal figure using an inflation assumption of 3.1% and then adjusted for corporation tax, after that, the figures were converted back to real prices).

5.12 Oxera has examined the advantages and disadvantages of the two approaches. As explained by Oxera, there is an argument that the second approach is preferable because it is more consistent with the way that corporation tax liabilities are calculated. However, the first approach has an important advantage that the regulatory depreciation allowance is constant in each year that the asset remains within the asset base (assuming straight-line depreciation). As a result, Oxera considers that today's customers and tomorrow's customers pay an equal amount for the asset. The appropriateness of the outcomes can be sensitive to other assumptions used in the calculation and in particular the assumption on corporation tax.

5.13 Economic regulators have generally used the first approach, and it is the one that we used to establish the range for Network Rail's pre-tax WACC in our draft determination. We have discussed the treatment of tax liabilities in the above calculation with Network Rail and we agree that there should not be any material difference between these approaches for use in our PR18 determination.

5.14 Given that we would expect to use a vanilla WACC value in any full WACC approach to calculating revenue requirements, and in light of the degree of subjectivity associated with the parameters for Network Rail's cost of capital for CP6, we have decided to use the first (existing) approach for determining a pre-tax WACC for CP6.

Factors taken into consideration for our determination of values

5.15 In making our final determination we have had regard to the following factors that we identified in our draft determination:

(a) Our duties with respect to the financing of network activities, referred to in section 4 of the Railways Act 1993.

(b) A view that regulated network businesses are less risky than considered in historical cost of capital decisions by economic regulators.

(c) The similarities and differences between the business risk profiles of Network Rail and comparator sectors.

(d) The relatively low prevailing cost of debt and equity financing.

(e) The level and cost of Network Rail's embedded debt.

5.16 In deciding on the final determination values we have also taken account of the following recent cost of capital studies in other economically regulated sectors:

- a report by PwC Economics for the Civil Aviation Authority on estimating the cost of capital for the upcoming price control for Heathrow Airport Ltd (November 2017)[41]; and
- a review of the cost of equity for RIIO-2 energy network price controls prepared for the Energy Networks Association (February 2018)[42].

5.17 We have also considered:

- arguments for placing reliance on:
  - long-run historical data; and
  - forecasting methodologies,

  and for achieving an appropriate balance between them;
- ongoing support for the CAPM approach to determining cost of equity;
- the costs and benefits associated with indexing cost of debt and cost of equity values;
- the allowance of between 10 and 20 basis points that is allowed by some regulators in respect of debt issuance costs; and

41 http://publicapps.caa.co.uk/docs/33/PwC_H7InitialWACCrange.pdf

42 https://www.oxera.com/wp-content/uploads/2018/07/ENA-cost-of-equity_2018-02-28.pdf.pdf

- the general use of a corporation tax main rate of 17% (the rate that is due to apply from 2020-21) for grossing-up purposes (see paragraphs 5.10 to 5.14 above).

5.18 We have taken account of the differences between regulated sectors, in particular:

- incentive regimes which can significantly affect prospective returns;
- varying bases for assumptions about future inflation rates;
- transactional evidence in some sectors, for example RAB premiums in business sales; and
- business structures, such as whole business securitisation arrangements.

5.19 We have also discussed the cost of capital issues with the UK Regulators Network's cost of capital network[43].

Final determination values for WACC and cost of debt

5.20 Having considered the factors outlined above, we consider that the ranges we set out in our draft determination remain valid in light of our further review work outlined above.

5.21 In Network Rail's response, it said that it thought its original range was still appropriate as although Oxera's analysis was carried out in summer 2017, it thought that the main time sensitive factor in Oxera's analysis was the forward-looking debt premium element of the cost of new debt. Network Rail has said the implied CP6 forward interest rates have only fallen slightly since summer 2017.

5.22 After considering Network Rail's response to our draft determination, we consider that the mid-points of our ranges are appropriate, this is particularly because compared to Network Rail's views we, in common with other regulators, think the risk levels reflected in debt costs provided for regulated utilities have been systemically overestimated in the past.

5.23 For our final determination, we have expressed the values of the vanilla WACC and pre-tax WACC in real terms with respect to CPI rather than RPI. This is consistent with our decision to use CPI indexation for CP6 (see chapter 2). This means that the values we have determined are 1.0 percentage point higher than they would have been if we had stated our determination in real terms with respect to RPI, because this is the differential we assumed between the two indices.

5.24 Our final determination values for the Vanilla WACC and the pre-tax WACC in CP6 are set out in Table 5.2 below. The real (RPI) pre-tax cost of debt is 1.45% and is set

[43] http://www.ukrn.org.uk/?s=cost+of+capital&submit=Go

with reference to RPI as Network Rail's contract with Crossrail uses RPI in the calculation of the CSAC. The cost of capital and cost of debt take account of Network Rail's embedded debt.

Table 5.2 – Final determination values for WACC

	Real CPI	Real RPI (for comparison)
Vanilla WACC	3.8%	2.8%
Pre-tax WACC	4.15%	3.15%

6. Route and overall revenue requirements

Introduction

6.1 In this chapter we:

- provide information on how we have determined our revenue requirement settlements for Network Rail's routes[44]. This includes explaining the process for calculating the Scotland route revenue requirement and the Scotland total revenue requirement including how cost recharges affect the calculations;
- explain the approach we used to determine the proportions of Network Rail's total revenue requirement for each year of CP6 that should be recovered though fixed track access charges, and network grant payments from the governments;
- set out the treatment of non-SoFA expenditure in CP6; and
- confirm for accounting purposes how some aspects of our determination would change if Network Rail's business was privately financed.

6.2 All the decisions we have made or confirmed below have been taken after considering responses to our previous financial framework documents and our draft determination. We provide more detail on the responses we have received and our views on them in our document: 'Consultation on the draft determination – summary of comments and our response'. The majority of respondents agreed with the approach we set out in our draft determination.

Determination of revenue requirements

6.3 In our draft determination, we set out the format for the calculation of route net revenue requirements in respect of operating, support, maintenance and renewals (OSMR) activities, taking account of forecast OSTI. This is for:

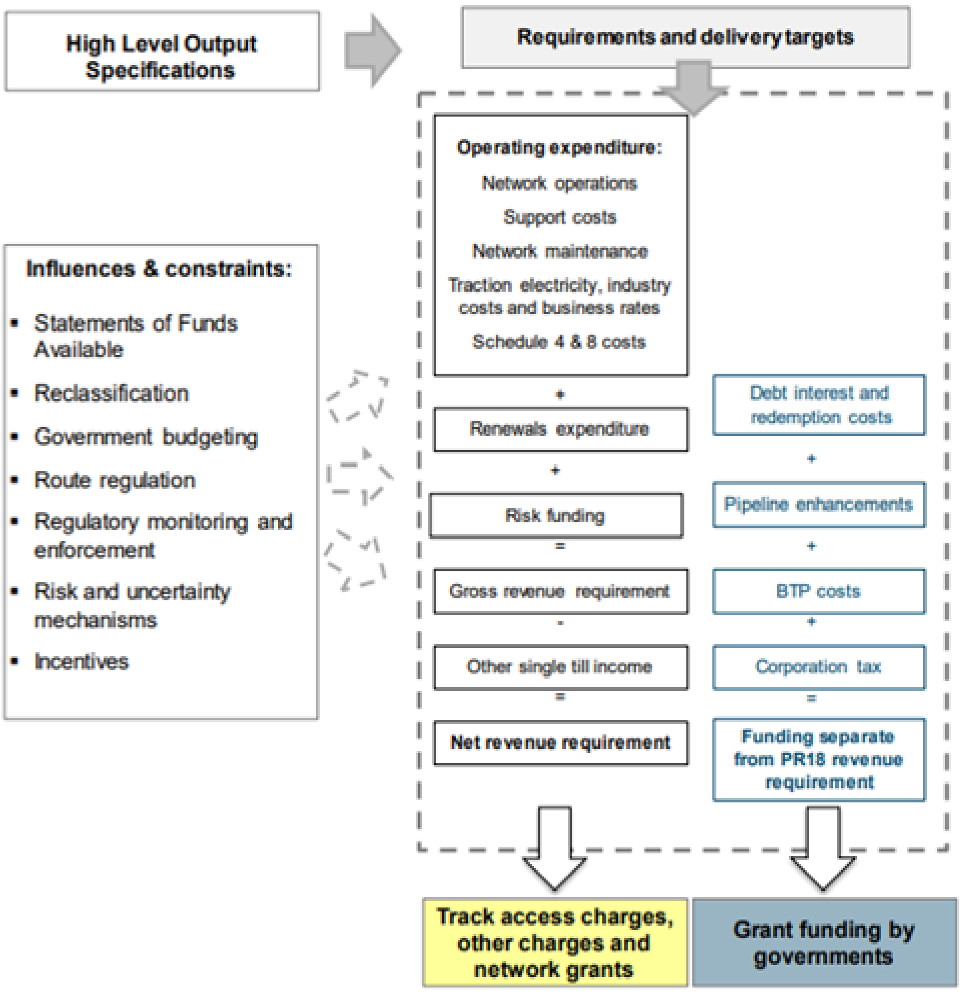
- each geographical route;
- the FNPO;
- the SO; and
- totals for England & Wales, Scotland and Great Britain.

[44] In this chapter of the document, routes include the geographical routes, FNPO and SO.

6.4 Our revenue requirement calculations largely follow this format and are set out in the individual settlement documents for each route, in both 2017-18 and cash prices. The opening and projected RAB balances for each route are also set out.

6.5 We have used a 'building blocks' approach to calculate the revenue requirements as shown below.

Figure 6.1: CP6 building blocks diagram



6.6 In our draft determination, we set out some different views to Network Rail's views in its SBPs on efficiency/headwinds, asset sustainability expenditure, safety related expenditure, property income and research and development expenditure. We also asked it to review its allocations of route-controlled risk funding amongst the routes in the context of our decision to move some funding from the centrally-held GPF to contingent asset management funding[45] in route settlements.

[45] References in our earlier financial framework publications were to 'contingent renewals funding'.

6.7 Network Rail has considered these issues and its response is summarised in the PR18 final determination overview of approach and decisions document, where we set out our final views.

6.8 In addition, the following changes have been made in order to correct for errors in Network Rail's SBPs:

- moved group maintenance costs from support to maintenance (£330m);
- corrected the allocation of HS1 income (£15m); and
- reduced other operating income in Scotland due to the incorrect inclusion of income from toilet charges (£2.5m) in the SBP.

6.9 In addition, there was an error in the SBP for a misclassification of £134m of workplace management costs to support rather than operations costs. However, £72m of this error has not yet been corrected. This misclassification will not have any impact on the overall determination. Network Rail will correct this error in its CP6 delivery plans.

6.10 We have not made any adjustment to include Crossrail supplementary access charge income in our revenue requirement for England and Wales due to uncertainty over how much of this income Network Rail will be able to spend.

Calculating route revenue requirements for CP6

6.11 A core part of PR18 is the process for determining Network Rail's revenue requirements for CP6 at route-level. To calculate these revenue requirements we used a 'building blocks' approach, as illustrated in Figure 6.1 above. This approach sums Network Rail's expected efficient expenditure for OSMR activities then deducts expected 'Other single till income' (OSTI). It includes the adjustment for the RPI/CPI differential.

6.12 Our approach for PR18 has changed reflecting the structural changes to Network Rail's organisation and funding, e.g. the introduction of the SO and FNPO. Our policies on the SO and the FNPO were set out in our January 2018 overall framework conclusions[46].

6.13 The SO provides its services to the geographical routes and FNPO. Therefore, its expenditure will be included in the building blocks calculation of each of the other route's revenue requirement.

6.14 Although the FNPO incurs some support and operations expenditure, this is relatively small compared to the expenditure of the geographical routes, and it does not directly

[46] This is available on our website, here.

incur any expenditure for operating, maintaining or renewing infrastructure assets. Instead, the FNPO will be charged a share of each geographical route's expenditure[47], to reflect the costs attributable to usage by freight and national passenger operators. These recharges will be included in the building blocks calculation of the revenue requirement for the FNPO. It will also be charged its share of SO expenditure.

6.15 In our financial framework conclusions document we explained how the FNPO and SO revenue requirements interact with the geographical route revenue requirements and the totals for England & Wales, Scotland and Great Britain. This is explained below and illustrated in Annex G.

Process for calculating total revenue requirements for England & Wales, and Scotland

6.16 In addition to calculating route revenue requirements, we also need to calculate the revenue requirements for Scotland and for England & Wales in total.

6.17 Some of the activities of the SO and FNPO are not route specific and cover the whole of Great Britain, so we need to show how their revenue requirements are attributable to Scotland and England & Wales for the purposes of the:

- comparison of total revenue requirements to the SoFA amounts; and
- setting of track access charges.

6.18 An appropriate share of the SO's expenditure will be recharged to the Scotland route, so no further adjustment is required for our calculation of the total revenue requirement attributable to Scotland. However, we need to share the FNPO's revenue requirement between Scotland and England & Wales. The two key issues are:

- there is a charge from the Scotland route to the FNPO, which needs to be reversed when we calculate the revenue requirement for Scotland in total; and
- we need to allocate a share of the FNPO's own support and operations expenditure, plus its share of SO costs to England & Wales and to Scotland.

6.19 This means there are two revenue requirement figures relating to Scotland:

- **the revenue requirement for the Scotland route** (using a 'building blocks' approach); and
- **a total Scotland revenue requirement**, which is the sum of:

[47] This is because it is the geographical routes that directly incur expenditure on operating infrastructure assets.

- the revenue requirement for the Scotland route;
- the amount recharged by the Scotland route to the FNPO; and
- the share of the FNPO's own support and operations expenditure, and recharged SO costs, attributable to freight operations in Scotland.

6.20 This calculation is illustrated in Annex G.

Cost recharges within Network Rail

Presentation of recharges

6.21 Our determination shows recharges by the:

- SO to geographical routes and the FNPO for its services; and
- geographical routes to the FNPO for use of infrastructure.

Review of central cost allocations to routes

6.22 Some central function costs are allocated to routes under methodologies contained in Network Rail's 'central cost and income allocation handbook'.

6.23 We have reviewed Network Rail's central cost allocations to routes in its business plans for CP6, having particular regard to allocations to the Scotland route, because of the separate funding provisions that apply to Scotland and its materiality to Transport Scotland. In doing so, we have considered the findings of the report we commissioned from Cambridge Economic Policy Associates Ltd (CEPA)[48].

6.24 Following our draft determination, we had some detailed discussions with Network Rail, DfT and Transport Scotland on the allocation of costs to routes, with a particular focus on Scotland. We have decided not to make any changes to the cost recharges for central functions that Network Rail has included in its SBPs as Network Rail has demonstrated that it had taken a reasonable approach to the allocation of central costs across routes in its SBP.

6.25 Reflecting Network Rail's commitment to continuous improvement in this area and the importance of route regulation, we expect Network Rail to keep the methods it uses under review in CP6 and where appropriate update its methodology, for example, where better data is available. We would discuss the implications and timing of any potential changes to the methodology with Network Rail's routes and centre, DfT and Transport Scotland.

[48] http://orr.gov.uk/__data/assets/pdf_file/0003/27903/pr18-central-cost-allocations-to-routes.pdf

Approach to the balance between FTACs and network grants

6.26 Network Rail recovers its revenue requirements for OSMR activities (net of OSTI) through access charges and network grants. See chapter 9 of the PR18 overview document for further information about how charges have been set for CP6.

6.27 In calculating the balance between network grants and FTACs for the whole control period, with DfT's agreement, for England and Wales we have assumed that the maximum grant payments (as set out in the SoFA) will be made. This means that the difference between the net revenue requirement, and variable charges, Schedule 4 ACS, EC4T and network grants, is equal to the amount of FTACs. In deciding on the yearly balance between network grants and FTACs, we have chosen to keep FTACs fixed (in 2017-18 prices) to minimise the impact on train operators. Consequently, we have made network grant payments the annual balancing figure. The reason that this is necessary is that Network Rail's expenditure is different across each year of CP6.

6.28 For Scotland, DfT has informed us about the FTAC levels that it thinks are appropriate for each year of CP6. We have accepted these and the network grant is then the remaining balance between expenditure, variable charges, Schedule 4 ACS, EC4T and FTACs for each year and for CP6 as a whole. The FTACs (in cash prices) have then been deflated using CPI to arrive at values in 2017-18 prices. Network Rail's use of forecast CPI (instead of RPI) to deflate FTACs (in cash prices) has the effect of including an uplift for the RPI/CPI differential in FTACs.

6.29 Annex F provides a simple worked example of the approaches for England and Wales, and for Scotland. Although the approaches for England & Wales and Scotland are different, they reflect the requirements of DfT and Transport Scotland.

6.30 It should be noted, however, that Network Rail's cost-reflective allocation methodology for FTACs means that charges for individual operators are likely to vary from year to year because their use of the network will vary from year to year.

Non-SoFA expenditure in CP6

6.31 As explained in our financial framework second consultation, our determination of revenue requirements for OSMR in CP6 will form part of a bigger funding picture for CP6, with some expenditure and non-SoFA enhancements being separately funded by the governments. The non-SoFA expenditure that will be funded directly by the UK Government under separate arrangements in CP6 are payments for legacy debt, British Transport Police (BTP) costs[49] and corporation tax costs.

[49] The UK Government will make available to Network Rail the funds required to meet its obligations to the British Transport Police as a holder of a Police Service Agreement.

6.32 There will also be enhancement work on HS2 carried out by Network Rail. If there are other non-SoFA enhancement projects, they will be separately funded in CP6, subject to approval by the governments.

Confirmation for purposes of accounting valuation of Network Rail's assets

6.33 We confirm that, in principle, if Network Rail's business was privately financed, we would expect to use a full WACC approach to calculating its revenue requirement. In particular, the RAB would be used in the calculation of the revenue requirement and a cost of capital would be used to calculate the allowed return.

7. Network grants, track access contracts, licence provisions and FIM fee

Introduction

7.1 In this chapter we explain:

- how network grant dilution provisions work;
- our views on the re-opener provisions; and
- the position with the FIM fee.

7.2 All the decisions we have made or confirmed below have been taken after considering responses to our previous financial framework documents and our draft determination. We provide more detail on the responses we have received and our views on them in our document: 'Consultation on the draft determination – summary of comments and our response'.

Network grant dilution provisions

7.3 We set out in chapter 6 the approach we will use to determine the proportions of Network Rail's total revenue requirement for each year of CP6 that should be recovered though fixed track access charges, and network grant payments from the governments.

7.4 For CP5, there has been a deed of grant between DfT and Network Rail, and a grant agreement between Transport Scotland and Network Rail, in respect of network grant payments. These set out the dates and amounts for network grant payments.

7.5 In light of Network Rail's reclassification as a public sector arm's length body, the network grant deed/agreement might be replaced by more straightforward letters of grant reflecting the 'grant in aid' nature of network grants for CP6[50]. This is something that remains to be agreed by DfT and Transport Scotland with Network Rail.

7.6 We expect that, as with the grant deed/agreement, letters of grant would still set out a schedule of network grant payments and dates payable. However, they might also provide for payments to be varied in certain circumstances, such as:

- Network Rail proposing to bring forward or defer expenditure under the budgetary flexibility rules summarised in Annex C; and

[50] Grant in aid refers to funding provided to government bodies to finance their operations within parameters set by governments.

- decisions on the use of CSAC income.

7.7 The track access contracts for franchised passenger operators contain network grant dilution provisions. These provide that, in the unlikely event that a network grant payment is not made[51], the franchised train operators would each be obliged to pay a share of the shortfall to Network Rail, three months after the 'dilution date'. This reflects that the network grants offset an amount of income that would otherwise be recovered through higher fixed track access charges.

7.8 We have decided to retain the network grant dilution provisions currently included in track access contracts, as it is important that Network Rail has certainty over its network grant income.

7.9 Whether a deed of grant or grant letter is used, the grant dilution clause in access contracts would still be enforceable.

Re-opener provisions

7.10 Track access contracts presently contain a provision relating to *"Access charges reviews capable of coming into operation before 1 April 2019"*. This is commonly referred to as a re-opener provision.

7.11 Having considered responses to our draft determination and to our consultation on changes to track access contracts[52], our decision is to retain this provision in track access contracts, updated to refer to *'before 1 April 2024'*. This is because these provisions provide an important mechanism that allows us to work with the governments, Network Rail and industry stakeholders to change the terms of our determination of track access charges if material unforeseen circumstances were to arise during CP6.

7.12 Some of the respondents to our draft determination have suggested that there should be a specific schedule 8 re-opener. Our views on this are included in the PR18 final determination overview of approach and decisions document.

Financial licence conditions

7.13 In July 2018 we published a consultation on a draft network licence for Network Rail in CP6 (see associated document 7 in Annex A). We are publishing a response document alongside our final determination on our changes to the network licence

[51] For example, the governments missing entirely a scheduled payment or not following the agreed grant payment process with Network Rail.

[52] Implementing PR18: consultation on changes to access contracts, July 2018, available here.

that reflects, amongst other things, our route level approach to regulation in CP6, and Network Rail's reclassification as an arm's length public sector body.

Financial indemnity fee

7.14 In our draft determination, we said that we would consider whether to propose a change to the fee payable by Network Rail for the financial indemnity of its private sector debt by the UK Government. This is currently 1.1% (on an annual basis) of the daily outstanding amount of indebtedness incurred by Network Rail Infrastructure Finance plc that is supported by the indemnity (this requirement is in condition 3 of the network licence). We also noted that in CP6, any fee would be funded by the UK Government as part of the separate funding of Network Rail's legacy debt liabilities.

7.15 In light of discussions with the UK Government, it is not clear whether the financial indemnity fee requirements should be retained in the network licence for CP6. We will make a final decision on this when we have updated views from DfT on the relevance of the fee going forward.

7.16 If we retain the requirement, the fee would continue to be 1.1% (on an annual basis).

Annex A - Associated documents

(1) Our first consultation on the PR18 financial framework – January 2017

http://orr.gov.uk/__data/assets/pdf_file/0020/23960/pr18-consultation-on-the-financial-framework-2017-01-26.pdf

(2) Our update letter on the PR18 financial framework – December 2017

http://orr.gov.uk/__data/assets/pdf_file/0004/26284/update-on-the-financial-framework-for-pr18-letter-2017-12-14.pdf

(3) Our second consultation on the PR18 financial framework – March 2018

http://orr.gov.uk/__data/assets/pdf_file/0018/27342/second-consultation-on-the-pr18-financial-framework-march-2018.pdf

(4) CEPA report on Network Rail central cost allocations – April 2018

http://orr.gov.uk/__data/assets/pdf_file/0003/27903/pr18-central-cost-allocations-to-routes.pdf

(5) CEPA report on Network Rail's approach to financial risk management – April 2018

http://orr.gov.uk/__data/assets/pdf_file/0003/27903/pr18-central-cost-allocations-to-routes.pdf

(6) Our draft determination on the PR18 financial framework – June 2018

http://orr.gov.uk/__data/assets/pdf_file/0008/27791/pr18-draft-determination-financial-framework.pdf

(7) PR18 consultation on draft network licence – July 2018

http://orr.gov.uk/data/assets/pdf_file/0019/28324/consultation-on-draft-network-rail-network-licence-july-2018.pdf

Annex B - Glossary

Building blocks approach	A term used to describe, in general terms, the approach used by economic regulators to determine revenue requirements for regulated network businesses
Capex	Capital expenditure
Constant prices	Financial values all expressed in the price base of a specified year, even if those values are attributable to a range of years
CP5	The current control period for Network Rail, that runs from 1 April 2014 to 31 March 2019 under a settlement resulting from the PR13 process
CP6	The control period for Network Rail, that will run from 1 April 2019 to 31 March 2024 under a settlement resulting from the PR18 process
CPI	Consumer Price Index – a measure of the price of a basket of consumer goods and services
CPIH	The Consumer Prices Index including owner occupiers' housing costs
CSAC	Crossrail supplemental access charge
DfT	Department for Transport
Enhancement	Construction or works that improve the capacity, capability or amenity of the rail network, including for the connection of new key infrastructure to the existing rail network. Enhancements are classed as capex
Facility charge	A charge set to recover the costs of an enhancement and paid by the promoter of a scheme
FNPO	Freight and National Passenger Operator route
Gearing	A ratio showing the level of debt financing in a business often expressed as a percentage of total financing (from debt and equity)
GPF	Group portfolio fund – a fund, referred to by Network Rail in its SBPs for CP6, to allow financial risk to be efficiently managed during CP6. Network Rail proposed that each route should have control of some risk funding, and

	contribute an additional amount to a centrally-held group portfolio fund. The term GPF is now only used for centrally-held GPF
Headwind	Factors identified by Network Rail as being outside the control of the business, tending to increase costs
HLOSs	High level output specifications by the Department for Transport and Transport Scotland setting out what they want to be achieved by the rail industry during a control period
Logging-up	An approach used in CP5, under which adjustments to be considered in respect of Network Rail's revenue requirements or RAB were deferred until our PR18 review. The opex memorandum account (see separate entry) has been the primary mechanism for logging-up non RAB issues
Managing Change Policy	Our policy to combine the benefits of certainty regarding a five year determination with flexibility to respond to existing and new customers' needs
Opex	Operating expenditure
Opex Memorandum Account	An account maintained by Network Rail during CP5 for adjustments that were expected to be logged up and applied by us in the determination of the revenue requirement for CP6. Under the revised funding arrangements for CP6, such adjustments have been reflected in the governments' SoFAs and will therefore not be further taken into account in our revenue requirement calculations
ORR	Office of Rail and Road
OSTI	Other single till income
PR18	The 2018 periodic review of Network Rail, culminating in our final determination and the review notices due to be published in December 2018
RAB	Regulatory Asset Base - a regulatory value representing expenditure on Network Rail's assets. In CP6, each geographical route and the SO will have an individual RAB balance

RAGs	Regulatory accounting guidelines
Renewal	The replacement of an asset that has deteriorated to the extent that it can no longer be economically maintained, but where the replacement does not result in an enhancement. Renewals are classified as capex and expenditure is added to the RAB
Route	The eight geographical sub-divisions of the Network Rail business plus the FNPO route and, in this document, the SO
RPI	Retail Price Index – a measure of the price of a sample of retail goods and services
Single till	A regulatory approach where all of the costs and revenues of a regulated business are considered together, under a single regulatory economic settlement. We use this term in relation to Network Rail because we consider its income from network grants, charges, and commercial income (for example from property) together with expenditure when determining its revenue requirements
SBPs	Strategic business plans produced by Network Rail. Each route produced its own strategic plan for consideration in our PR18 review
Schedule 4	The schedule included in track access contracts between Network Rail and train operators that sets out the arrangements for compensation paid to operators when Network Rail takes temporary possession of the network (e.g. for engineering purposes)
Schedule 8	The schedule included in track access contracts between Network Rail and train operators that sets out the arrangements for compensating train operators for unplanned service disruption caused by Network Rail and other train operators
SO	The System Operator (SO) is the business unit within Network Rail responsible for planning the railway network and controlling access to it by train service providers through the allocation of capacity. The system operator also plans extensions to the railway network to ensure that future needs are addressed

	The system operator function is different from 'system operation', which relates to real time operation of the network; this is carried out within the geographical routes
SoFAs	Statements of funds available – set out the public funds that are, or are likely to be, available to secure delivery of the high-level output specifications (HLOSs) by the Department for Transport and Transport Scotland
WACC	Weighted average cost of capital In this document, we refer to a 'real vanilla' weighted average cost of capital, when talking about setting revenue requirements in hypothetical circumstances. When we are talking about the investment framework, we refer to a pre-tax WACC. The term 'vanilla' reflects, for Network Rail, the separate funding of corporation tax costs in CP6, which means that we only have to factor in a: (a) pre-tax cost of debt – i.e. the percentage charge that could be levied by lenders; and (b) post-tax cost of equity – i.e. the percentage return equity investors might expect to actually receive, weighted according to our notional gearing assumption. The term 'real' indicates that this form of WACC is presented as a lower percentage than a nominal WACC (when inflation is positive) because inflation is not included in the percentage value. The only difference between the 'real vanilla' weighted average cost of capital and the pre-tax WACC is the treatment of corporation tax. For the pre-tax WACC, the post-tax cost of equity is grossed up for corporation tax. This is because in the investment framework, corporation tax is not funded separately by the UK Government, so it needs to be included in the charge

Annex C – Summary of budgetary flexibility available to Network Rail in CP6

DfT has set out (in its response to our second consultation) the budgetary flexibility that Network Rail can expect to be allowed during CP6 in respect of Great Britain, as it is the position for Great Britain that is consolidated into DfT's accounts. This gives Network Rail significantly more flexibility than most other arms-length public sector bodies.

The flexibilities will be the same for Scotland and for England & Wales and there are no specific restrictions at route level. The limitations referred to include risk funding held centrally and at route level.

The flexibilities apply to budgets from 2019-20 onwards but will be subject to review at the next Spending Review. However, our expectation is that similar levels of flexibility (including year-end flexibilities) are likely to remain after the next spending review in 2019, so they will be there for the whole of CP6.

Capital expenditure funded in the SoFAs

We expect the flexibility for Network Rail's capital expenditure during CP6 to work as set out in DfT's response to our second consultation on the PR18 financial framework[53]. This is summarised below. The term "CP6 Budget lines" means the CP6 budget profile formally agreed by the UK Government following the publication of our final determination.

Six weeks before Budget, DfT will inform HMT of the flexibilities Network Rail wishes to use. DfT would expect to approve movements of up to 10% of current and future year's CDEL deferred to later years and up to 10% of any future year's CDEL accelerated to earlier years (excluding the current year). These flexibilities are subject to a cap of a 10% increase in CDEL for any individual year when compared to the CP6 Budget lines, although Network Rail would also be able to request larger movements six weeks before Budget, which HMT would consider as part of the wider fiscal picture.

HMT would then decide at Budget whether to approve the submitted flexibilities.

At Supplementary Estimates, DfT then submit their latest estimate of the flexibility Network Rail requires as part of the normal Budget Exchange process. HMT would expect this request with respect to the current year to be within £200m of the original Budget request for reprofiling with respect to future years.

Given the importance of Network Rail's work over the Christmas period, HMT would accept one final update in the first week of January. Again, HMT would expect this request with respect to the current year to be within £200m of the original Budget request for reprofiling with respect to future years.

[53] See http://orr.gov.uk/__data/assets/pdf_file/0007/27862/pr18-responses-to-second-consultation-on-the-financial-framework.pdf.

Twenty working days after year-end, Network Rail should inform DfT about any year-end underspends and the reason for the underspend. DfT will then inform HMT within another twenty working days. HMT would expect to approve reprofiling up to 2% of CDEL year-end underspends (compared to the CP6 Budget lines) deferred to later years, including the current year. Reprofiling of year-end underspends would be included within the 10% cap for any individual year's adjustment. The 2% would be additional to the 10% flexibility allowance for the year in which the underspend has occurred.

There is no flexibility to transfer budgeted amounts from capital expenditure to resource expenditure.

The references to capital expenditure and CDEL relate to works funded in DfT's SoFA, which included some funding for enhancements. Further information on the approach for enhancement projects that will be separately funded in CP6 is available in DfT's publication: 'Rail network enhancements pipeline - a new approach for rail enhancements'[54].

Resource expenditure funded in the SoFAs

With respect to resource expenditure[55] during CP6, Network Rail can expect to be allowed, at the time of supplementary estimate submission in a given year[56]:

- full flexibility to transfer budgeted amounts for the year concerned from operating to capital expenditure; and
- to defer up to 0.75% of operating expenditure for the year concerned to a later year,

in each case, having obtained permission from DfT in particular because DfT itself is subject to an overall flexibility limit of 0.75% for its RDEL[57].

Income and capital receipts

Network Rail's budgetary settlement with the governments will take account of its forecast income levels excluding DfT grants[58]. DfT has said that Network Rail will be allowed to retain additional income that it receives up to a level of 10% of the agreed annual forecasts for use in its business. It may be allowed to retain additional amounts with agreement from HMT.

Under public sector finance rules, Network Rail will need to obtain approval to retain capital receipts, for example proceeds from asset disposals in CP6. We have included

[54] https://www.gov.uk/government/publications/rail-network-enhancements-pipeline

[55] For this purpose, resource expenditure means operating expenditure less income (except grant income).

[56] https://www.gov.uk/government/collections/hmt-supplementary-estimates

[57] RDEL means Resource Departmental Expenditure Limit.

[58] DfT grants are not treated as resource income in the UK Government's accounts.

forecast capital receipts in the OSTI values used for our revenue requirement calculations because our understanding is that approval would normally be granted.

Annex D – Route revenue requirement settlements

This Annex explains our determination of the revenue requirements for each of Network Rail's geographical routes, the FNPO and SO, for each year of CP6. The tables are included in the settlement documents.

Settlements for geographical routes

Expenditure values are summed to give the gross revenue requirements for each year of CP6.

For each route, the revenue requirements include the expenditure incurred directly by the route and expenditure sourced through Network Rail's central functions under cost allocation and recharge arrangements. The SO expenditure represents the route's share of the SO's expenditure recharged to it.

Other single till income and the FNPO recharges are then deducted to give the net revenue requirements for each year.

Net revenue requirements are then recovered through charges and the network grants provided by the governments.

Settlements for the SO and FNPO

For the SO and FNPO:

- the SO's net revenue requirement will notionally be recovered via the recharges to geographical routes and the FNPO; and
- for the FNPO:

  some expenditure will relate to recharges from the SO and geographical routes (for the use of their infrastructure); and

  some of its revenue requirement will be recovered through charges paid by freight and national passenger operators.

Annex E shows our determination of revenue requirements for CP6 for England & Wales, Scotland, and Great Britain.

Annex E – Revenue requirement and RAB values

This annex sets out our income and expenditure assumptions for Great Britain, England & Wales and Scotland in CP6.

Tables in E1 show the revenue requirement calculations for Great Britain, England & Wales and Scotland in 2017-18 prices. The tables include the uplift to reflect the move to CPI indexation as explained in chapter 2. The uplift is the difference between an amount in a CPI price base and one in a RPI price base (labelled as the 'RPI/CPI differential adjustment'[59] in the tables).

Note that the £35bn (in 2017-18 prices) of CP6 expenditure referred to in the Summary of Conclusions for England & Wales, and in the Summary of Conclusions for Scotland documents includes the following items: operations, support, maintenance, renewals, traction electricity and industry costs and rates from Table E1a.

Tables in E2 show the revenue requirement calculations for Great Britain, England & Wales and Scotland in cash prices. For Network Rail's revenue requirements the following process has been used to move from 2017-18 prices to cash prices[60]:

- Remove the RPI/CPI differential adjustment line from the net revenue requirement.
- Inflate each income and expenditure line by CPI.
- Uplift each income and expenditure line by the 1% RPI/CPI differential as appropriate.

Table E3 shows Network Rail's total expenditure in CP6 for Great Britain including non-SoFA expenditure.

Tables E4a and E4b reconcile, for England & Wales, income and expenditure in Tables E1b and in Table 8.3 in the PR18 final determination – overview of approach and decisions document to the England & Wales affordability position in Table 8.1 in our PR18 final determination – overview of approach and decisions document.

Tables E5a and E5b reconcile, for Scotland, income and expenditure in Tables E1c and in Table 8.3 in the PR18 final determination – overview of approach and decisions document to the Scotland affordability position in Table 8.2 in our PR18 final determination – overview of approach and decisions document.

[59] There are two 'RPI/CPI differential adjustment' lines in these tables, the first adjusts the net revenue requirement and reflects the RPI/CPI differential for all expenditure lines apart from Schedule 4 & 8 (which is already indexed using CPI) and OSTI. The second adjustment reflects RPI/CPI differential for EC4T only (the remaining income lines do not require adjusting as they are already indexed using CPI).

[60] For example, in Table E1a, operations expenditure in 2020-21 (in 2017-18 prices) is £686m whilst the equivalent number in Table E2a (cash prices) is £754m. This is calculated by first inflating the £686m by CPI inflation (£686m x 1.07 = £732m) and second by inflating by the RPI/CPI differential (£732m x 1.03 = £754m).

Table E1a: Great Britain income and expenditure and RAB in CP6 (2017-18 prices[61])

	CP5		CP6					
£m, 2017-18 prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	595	2,843	689	686	686	684	681	3,426
Support	422	1,988	533	539	527	502	507	2,609
Maintenance	1,341	6,639	1,554	1,579	1,531	1,518	1,509	7,692
Renewals	2,436	14,219	3,052	3,657	3,687	3,423	2,823	16,642
Sch. 4 & 8	340	1,866	356	304	323	301	265	1,549
Traction electricity, industry costs and rates	640	2,804	744	791	861	959	973	4,328
Route-controlled risk funding	n/a	n/a	82	130	187	232	253	884
Contingent asset management funding	n/a	n/a	91	133	185	218	228	856
Route contribution to group portfolio fund	n/a	n/a	77	127	158	201	293	856
RPI/CPI differential adjustment	50	(275)	123	210	289	358	403	1,384
Gross revenue requirement	**5,823**	**30,083**	**7,301**	**8,155**	**8,434**	**8,396**	**7,937**	**40,225**
Other single till income	(660)	(3,221)	(545)	(558)	(547)	(554)	(564)	(2,767)
Net revenue requirement	**5,163**	**26,862**	**6,757**	**7,597**	**7,887**	**7,842**	**7,374**	**37,457**
Variable charges	(426)	(2,128)	(579)	(595)	(612)	(621)	(634)	(3,042)
EC4T	(380)	(1,619)	(485)	(531)	(599)	(613)	(629)	(2,856)
Schedule 4 ACS	(207)	(1,083)	(338)	(284)	(302)	(281)	(248)	(1,453)
FTAC	(1,412)	(4,926)	(1,119)	(1,131)	(1,140)	(1,150)	(1,159)	(5,699)
Network grant	(4,036)	(21,861)	(4,226)	(5,040)	(5,212)	(5,146)	(4,665)	(24,290)
RPI/CPI differential adjustment	(63)	299	(10)	(16)	(24)	(31)	(38)	(117)
Total SoFA related income	**(6,523)**	**(31,316)**	**(6,757)**	**(7,597)**	**(7,887)**	**(7,842)**	**(7,374)**	**(37,457)**
Closing RAB balance	69,468	n/a	69,468	69,468	69,468	69,468	69,468	n/a

[61] Uplifted for CPI/RPI differential – see illustration in Table 2.1 in chapter 2.

Table E1b: England & Wales income and expenditure and RAB in CP6 (2017-18 prices[62])

	CP5		CP6					
£m, 2017-18 prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	549	2,607	639	638	639	637	634	3,186
Support	380	1,768	473	478	467	445	450	2,314
Maintenance	1,220	6,040	1,409	1,433	1,390	1,376	1,368	6,977
Renewals	2,092	12,535	2,675	3,147	3,232	3,020	2,508	14,581
Sch. 4 & 8	317	1,732	341	286	305	286	252	1,471
Traction electricity, industry costs and rates	574	2,505	681	724	790	879	892	3,966
Route-controlled risk funding	n/a	n/a	64	94	130	153	160	600
Contingent asset management funding	n/a	n/a	91	133	185	218	228	856
Route contribution to group portfolio fund	n/a	n/a	77	127	158	201	293	856
RPI/CPI differential adjustment	44	(248)	110	185	257	320	361	1,234
Gross revenue requirement	**5,178**	**26,940**	**6,561**	**7,245**	**7,552**	**7,534**	**7,147**	**36,040**
Other single till income	(631)	(3,061)	(510)	(522)	(511)	(518)	(527)	(2,589)
Net revenue requirement	**4,547**	**23,879**	**6,050**	**6,723**	**7,041**	**7,016**	**6,621**	**33,451**
Variable charges	(391)	(1,944)	(523)	(539)	(555)	(564)	(576)	(2,757)
EC4T	(357)	(1,513)	(448)	(492)	(555)	(569)	(584)	(2,648)
Schedule 4 ACS	(184)	(961)	(324)	(267)	(285)	(267)	(236)	(1,379)
FTAC	(1,146)	(4,124)	(864)	(866)	(865)	(865)	(865)	(4,326)
Network grant	(3,704)	(19,713)	(3,882)	(4,544)	(4,759)	(4,722)	(4,324)	(22,232)
RPI/CPI differential adjustment	(56)	267	(9)	(15)	(22)	(28)	(35)	(109)
Total SoFA related income	**(5,838)**	**(27,986)**	**(6,050)**	**(6,723)**	**(7,041)**	**(7,016)**	**(6,621)**	**(33,451)**
Closing RAB balance	62,195	n/a	62,195	62,195	62,195	62,195	62,195	n/a

[62] Uplifted for CPI/RPI differential – see illustration in Table 2.1 in chapter 2.

Table E1c: Scotland income and expenditure and RAB in CP6 (2017-18 prices[63])

	CP5		CP6					
£m, 2017-18 prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	45	235	50	48	47	47	47	239
Support	42	219	60	61	60	57	58	295
Maintenance	121	600	145	145	141	142	141	715
Renewals	343	1,683	377	510	455	403	315	2,061
Schedule 4 & 8	23	134	15	18	18	15	13	79
Traction electricity, industry costs and rates	66	299	64	66	71	80	81	362
Route-controlled risk funding	n/a	n/a	18	36	58	79	93	284
Contingent asset management funding	n/a	n/a	0	0	0	0	0	0
Route contribution to group portfolio fund	n/a	n/a	0	0	0	0	0	0
RPI/CPI differential adjustment	6	(27)	13	25	32	39	42	150
Gross revenue requirement	**645**	**3,143**	**741**	**910**	**882**	**862**	**790**	**4,185**
Other single till income	(29)	(159)	(34)	(35)	(36)	(36)	(37)	(179)
Net revenue requirement	**616**	**2,983**	**706**	**874**	**846**	**826**	**753**	**4,006**
Variable charges	(35)	(184)	(56)	(56)	(57)	(58)	(58)	(285)
EC4T	(23)	(106)	(37)	(39)	(43)	(44)	(45)	(208)
Schedule 4 ACS	(23)	(122)	(14)	(17)	(17)	(14)	(12)	(74)
FTAC	(266)	(802)	(255)	(264)	(274)	(284)	(294)	(1,372)
Network grant	(332)	(2,148)	(344)	(496)	(453)	(424)	(341)	(2,058)
RPI/CPI differential adjustment	(7)	32	(1)	(1)	(2)	(2)	(3)	(8)
Total SoFA related income	**(685)**	**(3,330)**	**(706)**	**(874)**	**(846)**	**(826)**	**(753)**	**(4,006)**
Closing RAB balance	7,273	n/a	7,273	7,273	7,273	7,273	7,273	n/a

[63] Uplifted for CPI/RPI differential – see illustration in Table 2.1 in chapter 2.

Table E2a: Great Britain income and expenditure in CP6 (cash prices)

	CP5		CP6					
£m, cash prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	615	2,773	734	754	779	801	823	3,891
Support	436	1,937	568	593	598	588	613	2,961
Maintenance	1,387	6,473	1,657	1,736	1,737	1,778	1,824	8,732
Renewals	2,519	13,796	3,253	4,020	4,182	4,009	3,412	18,876
Schedule 4 & 8	352	1,818	372	324	352	336	302	1,687
Traction electricity, industry costs and rates	662	2,740	793	869	976	1,123	1,177	4,938
Route-controlled risk funding	n/a	n/a	87	143	213	271	306	1,020
Contingent asset management funding	n/a	n/a	97	147	209	255	276	984
Route contribution to group portfolio fund	n/a	n/a	82	140	179	235	354	990
Gross revenue requirement	**5,970**	**29,538**	**7,645**	**8,725**	**9,225**	**9,396**	**9,088**	**44,080**
Other single till income	(683)	(3,144)	(581)	(613)	(620)	(649)	(681)	(3,145)
Net revenue requirement	**5,287**	**26,394**	**7,064**	**8,112**	**8,605**	**8,747**	**8,407**	**40,935**
Variable charges	(440)	(2,072)	(606)	(636)	(667)	(693)	(723)	(3,325)
EC4T	(393)	(1,582)	(517)	(584)	(679)	(717)	(760)	(3,258)
Schedule 4 ACS	(214)	(1,053)	(353)	(303)	(329)	(314)	(283)	(1,582)
FTAC	(1,460)	(4,833)	(1,170)	(1,207)	(1,243)	(1,283)	(1,322)	(6,225)
Network grant	(4,174)	(21,271)	(4,418)	(5,382)	(5,686)	(5,740)	(5,319)	(26,545)
Total SoFA related income	**(6,681)**	**(30,812)**	**(7,064)**	**(8,112)**	**(8,605)**	**(8,747)**	**(8,407)**	**(40,935)**

Table E2b: England & Wales income and expenditure in CP6 (cash prices)

	CP5		CP6					
£m, cash prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	568	2,544	681	701	725	746	766	3,619
Support	393	1,724	505	526	530	521	544	2,626
Maintenance	1,262	5,888	1,502	1,576	1,577	1,612	1,654	7,920
Renewals	2,164	12,153	2,852	3,460	3,665	3,537	3,031	16,544
Schedule 4 & 8	328	1,688	357	306	333	319	288	1,602
Traction electricity, industry costs and rates	594	2,448	725	796	896	1,029	1,079	4,526
Route-controlled risk funding	n/a	n/a	68	103	147	179	194	691
Contingent asset management funding	n/a	n/a	97	147	209	255	276	984
Route contribution to group portfolio fund	n/a	n/a	82	140	179	235	354	990
Gross revenue requirement	**5,309**	**26,446**	**6,870**	**7,753**	**8,261**	**8,432**	**8,185**	**39,501**
Other single till income	(653)	(2,989)	(544)	(574)	(580)	(607)	(636)	(2,942)
Net revenue requirement	**4,656**	**23,457**	**6,326**	**7,179**	**7,681**	**7,825**	**7,548**	**36,560**
Variable charges	(404)	(1,893)	(547)	(576)	(605)	(629)	(657)	(3,013)
EC4T	(369)	(1,479)	(478)	(541)	(630)	(666)	(706)	(3,021)
Schedule 4 ACS	(190)	(935)	(339)	(285)	(311)	(298)	(269)	(1,502)
FTAC	(1,185)	(4,042)	(903)	(925)	(944)	(965)	(987)	(4,724)
Network grant	(3,831)	(19,187)	(4,059)	(4,852)	(5,192)	(5,267)	(4,930)	(24,300)
Total SoFA related income	**(5,979)**	**(27,536)**	**(6,326)**	**(7,179)**	**(7,681)**	**(7,825)**	**(7,548)**	**(36,560)**

Table E2c: Scotland income and expenditure in CP6 (cash prices)

	CP5		CP6					
£m, cash prices	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	47	229	53	53	54	55	57	272
Support	43	213	64	67	68	67	70	335
Maintenance	125	585	155	160	160	166	170	811
Renewals	355	1,643	401	561	516	472	381	2,332
Schedule 4 & 8	24	130	15	19	20	17	15	86
Traction electricity, industry costs and rates	68	291	68	73	80	94	98	413
Route-controlled risk funding	n/a	n/a	19	40	66	92	113	329
Contingent asset management funding	n/a	n/a	0	0	0	0	0	0
Route contribution to group portfolio fund	n/a	n/a	0	0	0	0	0	0
Gross revenue requirement	**661**	**3,091**	**775**	**972**	**964**	**964**	**903**	**4,578**
Other single till income	(30)	(155)	(37)	(39)	(40)	(42)	(45)	(203)
Net revenue requirement	**631**	**2,937**	**739**	**933**	**923**	**922**	**859**	**4,375**
Variable charges	(36)	(179)	(58)	(60)	(62)	(64)	(66)	(312)
EC4T	(24)	(104)	(39)	(43)	(49)	(51)	(54)	(237)
Schedule 4 ACS	(23)	(119)	(15)	(18)	(18)	(16)	(14)	(81)
FTAC	(275)	(791)	(267)	(282)	(299)	(317)	(335)	(1,501)
Network grant	(343)	(2,084)	(360)	(530)	(494)	(473)	(389)	(2,245)
Total SoFA related income	**(702)**	**(3,276)**	**(739)**	**(933)**	**(923)**	**(922)**	**(859)**	**(4,375)**

Table E3: Network Rail's forecast total expenditure in CP6 for Great Britain including non-SoFA expenditure

£m, cash prices	Great Britain	England & Wales	Scotland
Total SoFA expenditure in income and expenditure tables E2a, E2b and E2c	**44,080**	**39,501**	**4,578**
British Transport Police (BTP)	534	488	46
Corporation tax	1,326	1,147	179
Financing costs	8,414	7,586	828
SoFA related enhancements	10,526	10,400	126
HS2 enhancements	4,800	4,800	46
Total non-SoFA expenditure	**25,600**	**24,421**	**1,179**
Total expenditure	**69,680**	**63,922**	**5,757**

Table E4a: Reconciliation between revenue requirement and affordability position: England & Wales income

Total CP6, £m	Income (uplifted 2017-18 prices)	EC4T	Inflation [64]	QX	Station lease income	Depots income	Facilities income	FNPO income	Open access income	Freight income	Affordability tables (cash prices)
Total variable charges	(2,757)	(2,648)	(629)	(383)	(257)	(422)	(307)	(81)	34	443	(7,008)
FTAC	(4,326)		(399)								(4,725)
OSTI	(2,589)		(353)	383	257	422	307	81	(34)	(343)	(1,867)
OOI[65]	(1,193)		(162)								(1,355)
Schedule 4 ACS income	(1,379)		(123)								(1,502)
Schedule 4 expenditure	1,471		132							(101)	1,502
Network grants	(22,232)		(2,068)								(24,300)

Explanatory notes

This table reconciles the income included in our revenue requirement calculations[66] with the income in the England & Wales affordability Table 8.1 in the PR18 final determination – overview of approach and decisions document[67].

The main differences in classification are the treatment of charges income and OSTI. In the SBP, station qualifying expenditure (‘QX’), income from station leases, depots, facilities and Crosscountry and Caledonian Sleeper franchises (labelled as FNPO income) is treated as OSTI, whereas in the SoFA they are treated as variable charges. Income from open access and freight operators is treated as variable charges in the SBP but OSTI in the SoFA. Also, in the SoFA, freight Schedule 4 expenditure is included in OSTI. These items in this table are in cash prices.

[64] The inflation adjustment is required because the SoFA is in cash prices, whilst the income numbers in the first column of this table are presented in uplifted 2017-18 prices.

[65] This is other operating income and is shown separately in the affordability tables but included in operating costs (as a credit) in the income and expenditure tables.

[66] These are presented in Table E1b (England & Wales income and expenditure and RAB in CP6, uplifted 2017-18 prices) and in Table 8.3 in the PR18 final determination – overview of approach and decisions document. These tables use the same income categories as in Network Rail’s SBP.

[67] The income categories in the affordability table are consistent with the DfT’s SoFA.

Table E4b: Reconciliation between revenue requirement and affordability position: England & Wales expenditure

Total CP6, £m	Expenditure (2017-18 prices)	Inflation	OOI	Affordability table (cash prices)
Operations	3,186	433		3,619
Support	2,314	312		2,626
Maintenance	6,977	943		7,920
Traction electricity, industry costs and rates	3,966	560		4,526
Total operating costs	**16,444**	**2,247**	**1,355**	**20,046**
Route-controlled risk funding	600	90		691
Contingent asset management funding	856	134		984
Route contribution to group portfolio fund	856	129		990
Risk funding	**2,311**	**354**		**2,665**
Renewals	14,581	1,963		16,544

Explanatory notes

This table reconciles the expenditure included in our revenue requirement calculations[68] with the expenditure in the England & Wales affordability Table 8.1 in the PR18 final determination – overview of approach and decisions document[69].

The inflation adjustment is required because the SoFA is in cash prices, whilst the expenditure numbers in the first column of this table are presented in 2017-18 prices.

Other operating income (OOI) is shown is shown separately in the affordability tables but included in operating costs (as a credit) in the income and expenditure and revenue requirement tables.

[68] These are presented in Table E1b (England & Wales income and expenditure and RAB in CP6, uplifted 2017-18 prices) and in Table 8.3 in the PR18 final determination – overview of approach and decisions document. These tables use the same expenditure categories as in Network Rail's SBP.

[69] The expenditure categories in the affordability table are consistent with DfT's SoFA.

Table E5a: Reconciliation between revenue requirement and affordability position: Scotland income

Total CP6, £m	Income (uplifted 2017-18 prices)	EC4T	Inflation [70]	QX	Station lease income	Depots income	Facilities income	FNPO income	Open access income	Freight income	Affordability tables (cash prices)
Total variable charges	(285)	(208)	(55)	(29)	(10)	(46)	(2)	(10)	1	24	(621)
FTAC	(1,372)		(128)								(1,500)
OSTI	(179)		(24)	29	10	46	2	10	(1)	(20)	(127)
OOI[71]	(77)		(10)								(88)
Schedule 4 ACS income	(74)		(7)								(81)
Schedule 4 expenditure	79		6							(4)	81
Network grant	(2,058)		(187)								(2,245)

Explanatory notes

This table reconciles the income included in our revenue requirement calculations[72] with the income in the Scotland affordability Table 8.2 in the PR18 final determination – overview of approach and decisions document[73].

The main differences in classification are the treatment of charges income and OSTI. In the SBP, station qualifying expenditure ('QX'), income from station leases, depots, facilities and Crosscountry and Caledonian Sleeper franchises (labelled as FNPO income) is treated as OSTI, whereas in the SoFA they are treated as variable charges. Income from open access and freight operators is treated as variable charges in the SBP but OSTI in the SoFA. Also, in the SoFA, freight Schedule 4 expenditure is included in OSTI. These items in this table are in cash prices.

[70] The inflation adjustment is required because the SoFA is in cash prices, whilst the income numbers in the first column of this table are presented in uplifted 2017-18 prices.

[71] This is other operating income and is shown separately in the affordability tables but included in operating costs (as a credit) in the income and expenditure tables.

[72] These are presented in Table E1c (Scotland income and expenditure and RAB in CP6, uplifted 2017-18 prices) and in Table 8.3 in the PR18 final determination – overview of approach and decisions document. These tables use the same income categories as in Network Rail's SBP.

[73] The income categories in the affordability table are consistent with Transport Scotland's SoFA.

Table E5b: Reconciliation between revenue requirement and affordability position: Scotland expenditure

£m	Expenditure tables (2017-18 prices)	Inflation	OOI	Affordability table (cash prices)
Operations	239	32		272
Support	295	40		335
Maintenance	715	97		811
Traction electricity, industry costs and rates	362	51		413
Total operating costs	**1,611**	**220**	**88**	**1,918**
Route-controlled risk funding	284	45		329
Contingent asset management funding	0	0		0
Route contribution to group portfolio fund	0	0		0
Risk funding	**284**	**45**		**329**
Renewals	2,061	272		2,332

Explanatory notes

This table reconciles the expenditure included in our revenue requirement calculations[74] with the expenditure in the Scotland affordability Table 8.2 in the PR18 final determination – overview of approach and decisions document[75].

The inflation adjustment is required because the SoFA is in cash prices, whilst the expenditure numbers in the first column of this table are presented in 2017-18 prices.

Other operating income (OOI) is shown is shown separately in the affordability tables but included in operating costs (as a credit) in the income and expenditure and revenue requirement tables.

[74] These are presented in Table E1c (Scotland income and expenditure and RAB in CP6, uplifted 2017-18 prices) and in Table 8.3 in the PR18 final determination – overview of approach and decisions document. These tables use the same expenditure categories as in Network Rail's SBP.

[75] The expenditure categories in the affordability table are consistent with Transport Scotland's SoFA.

Annex F – Worked examples of the approach to the balance between FTACs and network grants

This annex provides a simple worked example of the approaches to the balance between FTAC and network grants for England and Wales, and for Scotland.

		Year 1	Year 2	Year 3	Year 4	Year 5	CP6 total
England and Wales							
Expenditure	a	100	110	120	130	140	600
Total network grant	b_{total}						350
Total FTAC	$c_{total} = a_{total} - b_{total}$						**250**
Funded by:							
FTAC	c	50	50	50	50	50	250
Network grant	b = a - c	50	60	70	80	90	350
Total funding	**d = b + c = a**	**100**	**110**	**120**	**130**	**140**	**600**
Scotland							
Expenditure	a	10	11	12	13	14	60
Funded by:							
FTAC	b	5	5	5	5	5	25
Network grant	c = a - b	5	6	7	8	9	35
Total funding	**d = b + c = a**	**10**	**11**	**12**	**13**	**14**	**60**

Notes:

1. First calculate total FTAC (600 – 350).
2. Then divide total FTAC by 5 for each year's FTAC.
3. Then deduct each year's FTAC from each year's expenditure to derive each year's network grant.

Annex G – Illustration of revenue requirement calculations showing the interaction between geographical routes, SO and FNPO

We set out below an illustration of revenue requirement calculations showing the interaction between geographical routes, SO and FNPO. Note that the figures shown are for illustration only and do not represent actual expenditure forecasts.

Illustration of revenue requirement calculations

Calculation of revenue requirements for geographical routes, FNPO and SO

		GB	FNPO	Scotland	Anglia	South East	LNE & EM	LNW	Wessex	Western	Wales
1	FNPO's own support and operations costs	8	8								
2	System operator costs	96	8	11	11	11	11	11	11	11	11
3	Geographical route OSMR	800		100	100	100	100	100	100	100	100
4	FNPO recharge		160	-20	-20	-20	-20	-20	-20	-20	-20
5	**Gross revenue requirement**	**904**	**176**	**91**	**91**	**91**	**91**	**91**	**91**	**91**	**91**
6	Other single till income	-40		-5	-5	-5	-5	-5	-5	-5	-5
7	**Net revenue requirement**	**864**	**176**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**

Calculation of total revenue requirements for England & Wales and Scotland

		GB	E&W	Scotland
8	Geographical routes net revenue requirements	688	602	86
9	Recharges to FNPO reattributed to England & Wales and Scotland	160	140	20
10	FNPO cost allocations (including FNPO share of SO costs)	16*	14	2
11	**Net revenue requirement**	**864**	**756**	**108**

*This is the sum of the values in rows 1 and 2 for the FNPO

Annex H – Summary of CP6 efficiency assumptions

Table H1: Efficiency assumptions in CP6 for Great Britain

Exit to exit basis[76]	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	-0.4%	0.8%	1.8%	2.1%	2.7%
Support	2.4%	3.5%	6.2%	7.0%	7.4%
Maintenance	2.5%	4.1%	5.7%	6.9%	7.7%
Renewals	4.3%	8.4%	13.2%	13.2%	13.3%
Total	**3.1%**	**6.2%**	**9.9%**	**10.1%**	**10.1%**

Table H2: Efficiency assumptions in CP6 for England and Wales

Exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	-0.2%	0.6%	1.5%	1.8%	2.4%
Support	2.9%	4.1%	6.9%	7.7%	8.1%
Maintenance	2.5%	4.0%	5.4%	6.6%	7.3%
Renewals	4.4%	8.3%	13.1%	13.4%	13.2%
Total	**3.2%**	**6.1%**	**9.6%**	**10.1%**	**9.9%**

Table H3: Efficiency assumptions in CP6 for Scotland

Exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	-2.2%	3.8%	5.6%	6.1%	6.6%
Support	-1.9%	-2.0%	0.4%	1.0%	1.2%
Maintenance	2.1%	5.6%	8.3%	9.4%	11.1%
Renewals	3.9%	8.6%	14.4%	12.3%	13.9%
Total	**2.5%**	**7.0%**	**11.6%**	**10.4%**	**11.5%**

[76] The measurement of efficiency compares spending in the last year of CP6 with the last year of CP5 (i.e. exit to exit). In this table, a positive percentage means efficiency, whereas a negative percentage means inefficiency.

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