Financial statements

Financial statements

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Independent auditor’s report to the members of Network Rail Limited

Opinion on financial statements

I have audited the financial statements of Network Rail Limited (‘the company’) for the year ended 31 March 2019 which comprise:

- the group income statement and statement of comprehensive income;
- the group and parent company statement of changes in equity;
- the group and parent company balance sheets;
- the group and parent company statement of cash flows;
- and the related notes, including the significant accounting policies.

The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards as adopted by the European Union. I have also audited the information in the Directors’ Remuneration Report that is described as having been audited.

In my opinion the financial statements:

- give a true and fair view of the state of Group’s and the parent company’s affairs as at 31 March 2019 and of the group’s loss for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union; and
- have been prepared in accordance with the Companies Act 2006.

Opinion on regularity

In my opinion, in all material respects the expenditure and income recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Conclusions relating to principal risks, going concern and viability statement

I have nothing to report in respect of the following information in the annual report, in relation to which the ISAs (UK) require me to report to you whether I have anything material to add or draw attention to:

- the disclosures in the annual report that describe the principal risks and explain how they are being managed or mitigated;
- the directors’ confirmation in the annual report that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity;
- the directors’ statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors’ identification of any material uncertainties to the group and company’s ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- whether the directors’ statement relating to going concern required under the Listing Rules in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with my knowledge obtained in the audit; or
- the directors’ explanation in the annual report as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group and company will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Basis of opinions

I conducted my audit in accordance with International Standards on Auditing (ISAs) (UK) and Practice Note 10 ‘Audit of Financial Statements of Public Sector Entities in the United Kingdom’. My responsibilities under those standards are further described in the Auditor’s responsibilities for the audit of the financial statements section of my report. Those standards require me and my staff to comply with the Financial Reporting Council’s Revised Ethical Standard 2016. I am independent of Network Rail Limited in accordance with the ethical requirements that are relevant to my audit and the financial

statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

The regularity framework described in the table below has been applied:

Regularity Framework	
Governing legislation	Network Licence
HM Treasury and related authorities	Managing Public Money

Overview of my audit approach

Key audit matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that I identified.

I consider the following areas of particular audit focus to be those areas that had the greatest effect on my overall audit strategy, the allocation of resources in my audit and directing the efforts of the audit team in the current year. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

This is not a complete list of all risks identified by my audit but only those areas that had the greatest effect on my overall audit strategy, allocation of resources and direction of effort. I have not, for example, included information relating to the work I have performed on the significant risks of management override of controls and fraud in revenue recognition; or the two newly identified risks around the transition to IFRS 9 and 15, and the company's migration of its balances to an upgraded Oracle platform in-year. While these areas were included in my risk assessment notified to the Audit and Risk Committee as significant audit risks, and the audit involved focused work in these areas, my work has not identified any matters to report.

The areas of focus were discussed with the Audit and Risk Committee; their report on matters that they considered to be significant to the financial statements is set out on page 100 to 101.

In this year's report the following changes to the risks identified have been made compared to my prior year report.

- The valuation of the railway network remains a key audit matter, but my focus has shifted this year away from the estimation uncertainty in respect of the performance adjustment relevant for the last years of Control Period 5 ('CP5'), towards Network Rail's overall confidence in Control Period 6 ('CP6') delivery at this early stage, and the continuing relevance of the Regulatory Asset Base ('RAB') as a basis for valuation in the context of the CP6 regulatory approach.
- The valuation of Network Rail's pension deficit appears for the first time as a key audit matter reflecting renewed audit focus in the extensive measurement work underlying the asset portfolio, and the estimation uncertainty inherent in the assumptions and roll-forward methodology supporting the liability.
- My testing of the valuation of capital accruals is also featured for the first time as a key audit matter, following enhanced focus arising after my initial sample testing results revealed a tendency towards optimism bias in the assessment of the value of work completed on capital projects at the year end. This effect was slight in terms of the overall projects but significant enough in terms of the year-end accruals testing for me to perform further work, which is described on the following pages.

Property, plant and equipment – valuation of the rail network

Description of risk

The group accounts for the rail network as a single asset carried in the Balance Sheet at its fair value. In the absence of an active market, fair value is estimated using the discounted cash flows associated with the asset.

As explained in Note 12 to the financial statements, the group continues to use the Regulated Asset Base ('RAB') as the starting point for its discounted cash flow valuation of the railway network. This is on the basis that a private owner of the railway network asset would have its revenue requirement determined using the building block model of regulation.

The value of the RAB at 31 March 2019 (after the effects of inflation, qualifying capital expenditure, and amortisation) is £72.0 billion. Management continues to acknowledge that, in pricing the asset, an investor would make an assessment of the deliverability of the current regulatory determination, and a discount of £281 million has been applied to the RAB value in determining the fair value of the rail network asset at the reporting date (31 March 2018: discount of £1,326 million). This is termed the Performance Adjustment and, as in previous years, has been calculated based on management's own performance forecasts for the remainder of the current Control Period. This year's adjustment represents a modest discount in respect of the overall assessment of financial risks in the delivery of CP6 (2019-2024) as a whole, whereas the prior year adjustment reflected the group's specific expectations for the final year of CP5 (2018-19) since the group had a reasonable expectation of required operational expenditure exceeding the determination amount.

A further discount of £232 million (31 March 2018: discount of £1,348 million) has been applied to reduce the reported fair value of the rail network asset to £71.5 billion (31 March 2018: £64.1 billion). This adjustment is equal to the value of assets separately recognised as Investment Property and Assets Held for Sale, and is applied on the basis that the under the traditional regulatory model, the revenue requirement of the regulated entity is calculated net of the income the entity expects to generate from the property assets. The reduced effect of this adjustment follows the disposal of the majority of the group's commercial estate during 2018/19, following which the group assesses that a private buyer would no longer be exposed to the risk of a RAB reduction connected with the sale (as was prudently assessed as being the case at 31 March 2018). Further information is included in note 12.

I identified the method of measurement of the railway network asset, and the inherent assumptions, as an area of significant risk for my audit of the company's 2018/19 financial statements. Due to the sale of a significant proportion of the investment property portfolio in 2018/19, I did not assess the adjustment made to the fair value of the railway network asset for these assets to carry significant levels of audit risk.

How the scope of my audit responded to the risk

Evaluating underlying valuation assumptions
Having read the regulator's determination for CP6, I agree that a market participant could reasonably expect their revenue requirement to be determined using the traditional regulatory funding model. I have therefore assessed as reasonable management's judgement that a market participant would value the railway network asset by reference to the RAB.

I confirmed with the regulator that, in their view, the sale of all (or part) of the railway network could take place without a regulatory re-opener (i.e. a new regulatory determination with revised outputs and a revised assessment of efficient costs). Accordingly, I have assessed as reasonable management's judgement that in valuing the railway network asset a market participant would make an adjustment to deliverability of the current regulatory determination. I was also content with the reasonableness of the other underpinning assumptions noted in Note 12.

Addressing measurement uncertainty – the performance adjustment
The company has measured the performance adjustment has the difference between its CP6 Delivery Plan and the CP6 funding settlement. I confirmed with the regulator that Network Rail's CP6 Delivery Plan has been formally adopted as the regulatory baseline for CP6.

Inherent in the described method of measurement of the Performance Adjustment is the assumption that a market participant would reasonably consider the Network Rail Delivery Plan to be a reliable best estimate of the risk-exclusive efficient costs of operating, maintaining and renewing the railway network. I therefore assessed the reliability of the

company's CP6 Delivery Plan by evaluating the planning process, and assurance work performed thereon. I also evaluated, at a high-level, the company's performance forecasts for CP6 against historic performance and my wider understanding of the business. Based on this work I have assessed management's measurement of the performance adjustment relevant to a third party as reasonable.

Management has not made any adjustment to the valuation to reflect the uncertainty inherent in the underlying cashflows; this is on the basis that a market participant would reasonably expect to receive a rate of return on the RAB which includes a risk buffer that appropriately reflects the risks inherent in the regulatory determination. I assessed the confidence that a theoretical investor might have in the regulator's pricing of risks and opportunities within the regulatory determination for CP6 by reviewing the CP6 planning process and, assurance work performed thereon, and have assessed management's assumption as reasonable.

Defined Benefit Pensions Scheme – valuation of deficit

The group is party to several pension schemes. Based on risk and value, I have restricted my significant risk (and key audit matter) in respect of pensions to the Network Rail section of the Railway Pensions Scheme ('RPS'). The balances related to this section reflect, respectively, 95 % and 96 % of the group's total assets and liabilities in respect of defined benefit pension schemes, with the Career Average Retained Earnings ('CARE') scheme making up the remainder. Both schemes are on a 60:40 shared cost basis between the group and scheme members.

There is significant complexity, and inherently a significant amount of estimation uncertainty, in the valuation of the net position of the RPS scheme arising from the need for:

- accurate and timely valuation of the various asset classes held in the pension fund administered by RPMI on Network Rail's behalf (£6,662m as at 31 March 2019, or £3,997m excluding members' share); and
- an appropriate actuarial estimate of the liability reflecting amounts to be paid out to scheme members in the future (£10,593m as at 31 March 2019, or £6,356m excluding members' share).
- Further detail is available in Note 26 to the financial statements, where scheme movements are presented on an aggregated basis for the RPS and CARE schemes, inclusive of members' share.

How the scope of my audit responded to the risk

Scheme liabilities

I contacted Network Rail's actuaries to obtain an up to date understanding of the methodology used to calculate the main financial assumptions, and to understand the methodology and level of uncertainty involved in the roll-forward calculation.

I performed my initial assessment of the independence and expertise of these actuaries, and engaged my own actuaries to examine the and assumptions, methodology and source data used to value the obligations. As a result of the October 2018 High Court ruling in Lloyds Banking Group Pensions Trustees Limited v Lloyds Bank PLC and others, this included an assessment of the reasonableness of estimates made in respect of Guaranteed Minimum Pension ('GMP') equalisation.

I have concluded that the assumptions and methodology applied by the group on advice from their actuaries are in line with best practice. In particular I note that financial assumptions are within reasonable ranges, with a 10 basis point increase in discount rate and inflation assumptions the principal drivers behind the increase in the liability's valuation since 31 March 2018; and that membership data has been appropriately adjusted to reflect the year-end position.

In respect of GMP equalisation, Network Rail have applied a past service cost equivalent to 0.1 % of liabilities. I am content that this judgement, which is at the lower end of industry experience, is reasonable since the Railways Pension Schemes were contracted out for only a short period post 1980, limiting the impact of equalisation to a small number of members.

I concluded management's valuation of scheme liabilities to be reasonable and in line with IAS 19 principles.

Scheme assets

My work on scheme assets relies to some extent on the statutory audit of the results RPS financial statements, which are independently performed by another firm,, but also includes a number of independent procedures which are weighted

Independent auditor's report continued

towards the December – March period since the RPS accounts are prepared to a December year end.

I assessed the design and implementation of RPMI's controls over the scheme assets and found them to be adequately designed and implemented. Key controls include regular analysis at an individual fund/investment level, which includes a check on any apparent valuation 'outliers' or unexplained movements; as well as monthly agreements to fund manager valuations which cover all funds at least quarterly. I additionally performed sample testing over the 31 March 2019 valuation of non-exchange-traded assets which include private equity, property and infrastructure investments, which confirmed the timely use of independently performed valuations.

I also completed analytical procedure over the performance of the pension assets in the period from 31 December 2018 to 31 March 2019 and found the performance to be in line with my independently benchmarked expectations. Network Rail's assets in RPMI's pooled funds (principally quoted equity, but also some unquoted equity and property investments) grew 5 % during this three-month period, in line with appropriately hedged FTSE and MSCI World indices which reflected market recovery from poor performance in the previous quarter.

I concluded management's valuation of scheme assets to be reasonable based on the evidence received.

Accruals for capital work – valuation

Description of risk

The group's accounting for its capital investment in the railway network, for example in terms of renewals, involve a level of estimation at the year end about the precise amount of work that has been delivered at 31 March, which may differ from plan, for example as a result of unexpected under- or over-delivery by Network Rail's contractors. Both controllable factors (e.g. contractor project management) and uncontrollable factors (e.g. ground conditions and weather) provide a level of estimation uncertainty which can be addressed through post Balance Sheet review in the group's routes and other delivery areas.

These factors are part of the estimation uncertainty outlined by the group under the comments concerning cost of work done in the 'Critical accounting judgements and key sources of uncertainty' section of Note 2.

Network Rail's capital accruals comprise the vast majority of the £1,434 million 'other accruals' in Note 18 of the financial statements as at 31 March 2019 (31 March 2018: £1,180 million). The estimate is built from the aggregation of estimates made by individual project teams, overseen by financial controllers and directors within the routes and delivery areas. The valuation follows the group's treatment of estimation uncertainty, in particular a tendency in project teams towards optimism bias both in an assessment of the quantity of work done (which would tend to overstate both accruals and PPE) and in their estimate of how disputes with contractors will conclude (which would tend to understate both accruals and PPE). The risk to the financial statements is associated with the need to reasonably reflect both tendencies.

While in many respects capital accruals valuation follows straightforwardly from management information, my experience of these specific factors caused me to recognise a significant risk in my reporting to the Audit and Risk Committee and to provide additional focus to my work, as described below.

How the scope of my audit responded to the risk

As a result of audit experience evidencing the tendency for project managers to over-estimate the extent of work done, I ensured my sample selection was sufficient to include further testing to provide a more firmly grounded statistical extrapolation of the potential effect on the accounts. I particularly focused, through a stratified approach on testing the highest value accruals separately from the remainder, on the higher risk in the population of smaller accruals which receive a lower level of management focus. We also widened our coverage and statistical confidence by testing the majority of accruals at project, rather than task line, level.

Alongside my work, management performed additional work to more thoroughly evaluate the estimation uncertainty factors using post year end information (for delivery optimism) and historical trends (for disputes optimism). I assessed both

exercises to be appropriately scoped and implemented – analysis in respect of disputes was conducted centrally based on historical trend analysis, while assessments of work stage again drew on an aggregation of project team's inputs.

Key observations

Having assessed the results of both exercises, my sample testing and associated statistical confidence bandings, I agreed with management an immaterial net adjustment of £56.8m to reduce both PPE and accruals, following which I was able to conclude that accruals were valued reasonably.

I found no evidence of manipulation by management at either a central or local level, and note that in many cases issues arose out of a failure by local teams to revisit previous assumptions, and therefore to leave their natural optimism bias untreated.

I have discussed with both management and the Audit and Risk Committee the need, pro-actively acknowledged by management, for an additional focus in future years on both drivers of uncertainty; most particularly, in addressing the root causes of the tendency for delivery optimism. A key root cause is that for some projects – including many which are financially well-managed during their overall lifecycle – insufficient focus is placed on revising accruals estimates based on information emerging after the Balance Sheet date. Management have outlined practical steps for resolution in future years, including an enhanced process to ensure project teams take advantage of this information, which if properly implemented are well placed to further mitigate estimation uncertainty in future years.

Application of materiality

I applied the concept of materiality in both planning and performing my audit, and in evaluating the effect of misstatements on my audit and on the financial statements. This approach recognises that financial statements are rarely absolutely correct, and that an audit is designed to provide reasonable, rather than absolute, assurance that the financial statements are free from material misstatement or irregularity. A matter is material if its omission or misstatement would, in the judgement of the auditor, reasonably influence the decisions of users of the financial statements.

Audited Area	Basis	Materiality
Overall Financial Statement Materiality (applying to all audited areas with the exception of those listed above)	Approximately 1 % of the rail network asset valuation	£500m
Account balances and transaction streams not connected with the valuation of the rail network asset and to support my opinion on regularity	Approximately 1 % of the group's total gross annual expenditure (operating and capital)	£100m

I consider the above benchmarks to reflect the principal considerations for the users of the accounts in assessing the financial performance and position of the group.

As well as quantitative materiality there are certain matters that, by their very nature, would if not corrected influence the decisions of users, for example, any errors reported in Directors' Remuneration Report. Assessment of such matters would need to have regard to the nature of the misstatement and the applicable legal and reporting framework, as well as the size of the misstatement.

I applied the same concept of materiality to my audit of regularity. In planning and performing audit work in support of my opinion on regularity and evaluating the impact of any irregular transactions, I took into account both quantitative and qualitative aspects that I consider would reasonably influence the decisions of users of the financial statements.

I agreed with the Audit and Risk Committee that I would report to it all uncorrected misstatements identified through my audit in excess of £1m, as well as differences below this threshold that in my view warranted reporting on qualitative grounds.

Total unadjusted audit differences, including the effect of extrapolating sample-based errors to a most likely position, reported to the Audit and Risk Committee would increase net assets by £33m.

Responsibilities of the Directors for the financial statements

As explained more fully in the Directors' statement of responsibilities within the Directors' report, the directors are responsible for:
- the preparation of the group financial statements and for being satisfied that they give a true and fair view;
- such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Independent auditor's report continued

- assessing the group's and the parent's company's ability to continue as a going concern, disclosing, if applicable, matters relating to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements
My responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (ISAs) (UK).

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), I exercise professional judgment and maintain professional scepticism throughout the audit. I also:
- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion – the risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group and company's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation; and
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

Audit scope
The scope of my group audit was determined by obtaining an understanding of the group and its environment, including group-wide controls, and assessing the risks of material misstatement at the group level.

The Network Rail group has total assets of £74.6bn. The majority of operations are within Network Rail Infrastructure Limited, whilst the obligations attaching to the legacy Debt Issuance Programme (used to finance the group until October 2014) reside in a separate legal entity, Network Rail Infrastructure Finance plc ('NRIF'). There are further small legal entities including a consultancy business and a company that manages the maintenance of non-owned stations. The Network Rail group is a consolidation of these legal entities.

I have audited the full financial information of Network Rail Infrastructure Limited, as well as the consolidation. The audit of NRIF is conducted by a component auditor. I exercised oversight of the conduct and results of this component audit through a direct review under group audit procedures, with the availability of the full NRIF audit file for my direct review

enabling this oversight. This work covered substantially all of the group's assets and pre-tax results, and together with the procedures performed at group level in respect of non-significant components, gave me the evidence I needed for my opinion on the group financial statements as a whole.

During the course of my audit, in addition to the key audit matters highlighted above, I:
- reviewed the accounting for proceeds from Network Rail's sale of railway arches;
- considered the impact of the evolving changes Network Rail is making under the banner of 'putting passengers first';
- evaluated the group's judgements about the implementation of IFRS 9 Financial Instruments and IFRS 15 Revenue from contracts with customers, and worked with management to further develop disclosures.

Furthermore, I reviewed the work of the component audit team working on NRIF who have:
- compared management's valuation of bonds used by NRIF under the legacy Debt Issuance with the results of an independently developed audit model; and
- performed detailed testing on a sample of derivative financial instruments, which are entered into by the group to mitigate interest rate and currency fluctuations on borrowings, and tested the application of hedge accounting to these instruments.

Other Information
Directors are responsible for the other information. The other information comprises information included in the Strategic Report and Corporate Governance Report, with the exception of the parts of the Directors' remuneration report described in that report as having been audited, the financial statements and my auditor's report thereon. My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon. In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

I am specifically required to address the following items and to report uncorrected material misstatements in the other information, where I conclude that those items meet the following conditions:
- Fair, balanced and understandable: the statement given by the directors that the annual report and accounts taken as a whole are fair, balanced and understandable and provide the necessary information to enable users to assess the entity's performance, business model and strategy, is materially inconsistent with my knowledge obtained in the audit.
- Audit & Risk Committee reporting: the section describing the work of the Audit & Risk Committee does not appropriately addresses matters communicated by me to that committee.

I also have nothing to report in this regard.

Opinion on other matters prescribed by the Companies Act

Directors' remuneration
In my opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

I also report to you if, in my opinion, certain disclosures of directors' remuneration required have not been made. I have nothing to report arising from this duty.

The strategic and directors' reports
In my opinion, based on the work undertaken in the course of the audit, the information given in the Strategic and Directors' Reports for the financial year for which the financial statements are prepared is consistent with the financial statements and those reports have been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the group and the company and its environment obtained in the course of the audit, I have not identified any material misstatements in the Strategic Report or the Directors' Report.

The corporate governance statement
In my opinion, based on the work undertaken in the course of the audit:
- the information given in the Corporate governance report, in compliance with rules 7.2.5 and 7.2.6 in the Disclosure Rules and Transparency Rules sourcebook made by Financial Conduct Authority (the FCA Rules), in respect of internal control and risk management systems in relation to financial reporting processes, and about share capital structures, is consistent with the accounts and has been prepared in accordance with applicable legal requirements.
- rules 7.2.2, 7.2.3 and 7.2.7 of the FCA Rules about the group and company's corporate governance code and practices and about its administrative, management and supervisory bodies and their committees have been complied with.

Notes to the financial statements continued

Based on my knowledge and understanding of the group and company and their environments obtained during the course of the audit, I have identified no material misstatements in this information.

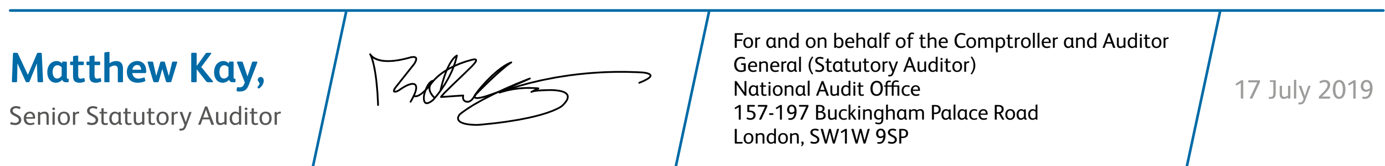
Matters on which I report by exception

Adequacy of accounting records information and explanations received

I report to you if, in my opinion:

- adequate accounting records have not been kept, or returns adequate for my audit have not been received from branches not visited by my staff;
- the financial statements and the part of the Remuneration report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made;
- I have not received all of the information and explanations I require for my audit; or
- a corporate governance statement has not been prepared by the parent company.

I have nothing to report arising from this duty.



Matthew Kay,
Senior Statutory Auditor

For and on behalf of the Comptroller and Auditor General (Statutory Auditor)
National Audit Office
157-197 Buckingham Palace Road
London, SW1W 9SP

17 July 2019

Income statement

for the year ended 31 March 2019

	Note	2019 Group £m	2018 Group £m
Revenue	3	**6,676**	**6,580**
Net operating costs	4	**(5,243)**	**(4,731)**
Operating profit	5	**1,433**	**1,849**
Property revaluation movements and profits on disposal		**363**	**190**
Profit from operations		**1,796**	**2,039**
Finance income	7	**11**	**8**
Other gains and losses	8	**220**	**234**
Finance costs	9	**(2,200)**	**(2,233)**
(Loss) /Profit before tax		**(173)**	**48**
Tax	10	**(52)**	**27**
(Loss) / Profit after tax for the year		**(225)**	**75**

Under section 408 of the Companies Act 2006 the group has elected to take the exemption with regard to disclosing the company income statement. The company's result for the year was £nil (2018: £nil).

Statement of comprehensive income

for the year ended 31 March 2019

	Note	2019 Group £m	2018 Group £m
(Loss)/ Profit for the year		**(225)**	**75**
Other comprehensive (expense)/income:			
Items that will not be reclassified to profit or loss			
Gain on revaluation of the rail network	12	**2,632**	**675**
Actuarial (loss)/gain on defined benefit pension schemes	26	**(31)**	**221**
Deferred tax relating to components of other comprehensive income*	22	**(443)**	**(152)**
Total items that will not be reclassified to profit or loss		**2,158**	**744**
Items that may be reclassified to profit or loss			
(Loss) / Gain on movement in fair value of cash flow hedge derivatives		**(5)**	**29**
Reclassification of balances in the hedging reserve to the income statement		**206**	**170**
Total items that may be reclassified to profit or loss		**201**	**199**
Other comprehensive income for the year		**2,359**	**943**
Total comprehensive income for the year		**2,134**	**1,018**

*Net of derivatives per note 22.

Statement of changes in equity

for the year ended 31 March 2019

Group	Revaluation reserve £m	Other reserve* £m	Hedging reserve £m	Retained earnings £m	Total equity £m
Balance at 31 March 2018	**751**	**249**	**(844)**	**6,618**	**6,774**
Loss for the year	-	-	-	(225)	(225)
Other comprehensive income					
Revaluation of the rail network	2,632	-	-	-	2,632
Transfer of deemed cost depreciation from revaluation reserve	(37)	-	-	37	-
Increase in deferred tax liability on the rail network	(447)	-	-	-	(447)
Actuarial loss on defined benefit pension schemes	-	-	-	(31)	(31)
Deferred tax on actuarial loss	-	-	-	4	4
Transfer of deferred tax	13	-	-	(13)	-
Decrease in fair value of hedging derivatives	-	-	(5)	-	(5)
Reclassification of balances in hedging reserve to the income statement	-	-	206	-	206
Total comprehensive income	**2,161**	**-**	**201**	**(228)**	**2,134**
Balance at 31 March 2019	**2,912**	**249**	**(643)**	**6,390**	**8,908**
Balance at 31 March 2017	**189**	**249**	**(1,043)**	**6,361**	**5,756**
Profit for the year	-	-	-	75	75
Other comprehensive income					
Revaluation of the rail network	675	-	-	-	675
Transfer of deemed cost depreciation from revaluation reserve	3	-	-	(3)	-
Increase in deferred tax liability on the rail network	(116)	-	-	1	(115)
Actuarial gain on defined benefit pension schemes	-	-	-	221	221
Deferred tax on actuarial gain	-	-	-	(37)	(37)
Increase in fair value of hedging derivatives	-	-	29	-	29
Reclassification of balances in hedging reserve to the income statement	-	-	170	-	170
Total comprehensive income	**562**	**-**	**199**	**257**	**1,018**
Balance at 31 March 2018	**751**	**249**	**(844)**	**6,618**	**6,774**

* Other reserves of £249m (2018 £249m) include the vesting reserve on privatisation.

There has been no movement in the current or prior year affecting the statement of changes in equity for the company.

Balance sheets

at 31 March 2019

	Note	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Assets					
Non-current assets					
Intangible assets	11	63	64	–	–
Property, plant and equipment - the rail network	12	71,467	64,142	–	–
Investment property	13	232	206	–	–
Derivative financial instruments	20	340	269	–	–
Interest in joint venture	14	44	35		
		72,146	64,716		
Current assets					
Assets held for sale	15	10	1,134	–	–
Inventories	16	226	215	–	–
Trade and other receivables	17	1,739	1,595	–	–
Current tax assets		2	–	–	–
Derivative financial instruments	20	10	227	–	–
Cash and cash equivalents		450	973	–	–
		2,437	4,144	–	–
Total assets		74,583	68,860		
Liabilities					
Current liabilities					
Trade and other payables	18	(3,406)	(2,840)	–	–
Current tax		–	–	–	–
Bank loans and overdrafts	19	(11,557)	(4,820)	–	–
Derivative financial instruments	20	(52)	(20)	–	–
Short-term provisions	21	(64)	(81)	–	–
		(15,079)	(7,761)		
Net current liabilities		(12,642)	(3,617)	–	–
Non-current liabilities					
Bank loans	19	(43,719)	(48,113)	–	–
Derivative financial instruments	20	(981)	(1,147)	–	–
Other payables	18	(326)	(246)	–	–
Retirement benefit obligation	26	(2,566)	(2,311)	–	–
Deferred tax liabilities	22	(3,004)	(2,508)	–	–
		(50,596)	(54,325)	–	–
Total liabilities		(65,675)	(62,086)	–	–
Net assets		8,908	6,774	–	–
Equity					
Revaluation reserve		2,912	751	–	–
Other reserve		249	249	–	–
Hedging reserve		(643)	(844)	–	–
Retained earnings		6,390	6,618	–	–
Total shareholder's funds and equity attributable to equity holders of the parent company		8,908	6,774	–	–

The financial statements and accompanying disclosure notes on pages 136 to 183 were approved by the board of directors and authorised for issue on 15 July 2019.

They were signed on its behalf by:

Andrew Haines
Chief executive

Jeremy Westlake
Chief financial officer

Company registration number: 4402220

Statement of cash flows

for the year ended 31 March 2019

	Note	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Cash flows from operating activities					
Cash generated from operations	23	3,622	3,549	–	–
Interest paid*		(1,634)	(1,455)	–	–
Income tax paid		–	(1)	–	–
Net cash generated from operating activities		1,988	2,093	–	–
Investing activities					
Interest received		11	8	–	–
Purchases of property, plant and equipment		(6,726)	(6,547)	–	–
Proceeds on disposal of property		1,469	81	–	–
Capital grants received		679	791	–	–
Net cash outflows from joint ventures		(9)	(2)	–	–
Other capital expenditure**		–	(1,268)	–	–
Net cash used in investing activities		(4,576)	(6,937)	–	–
Financing activities					
Repayments of borrowings	19	(4,597)	(1,541)	–	–
New loans raised	19	6,688	6,713	–	–
Decrease / (increase) in collateral posted	19	23	(125)	–	–
Decrease in collateral held	19	(49)	(172)	–	–
Net cash generated from financing activities		2,065	4,875	–	–
Net (decrease)/increase in cash and cash equivalents		(523)	31	–	–
Cash and cash equivalents at beginning of the year		973	942	–	–
Cash and cash equivalents at end of the year		450	973	–	–

* Balance includes the net interest on derivative financial instruments

** Cash flow on repayment of Crossrail project funding made available during the course of construction

Notes to the financial statements

for the year ended 31 March 2019

1. General information

Network Rail Limited ('the company') is a company limited by guarantee which is incorporated and domiciled in Great Britain and registered in England and Wales under the Companies Act 2006. Network Rail Limited is an arm's length body of the Department for Transport.

The company registration number is 4402220.

The company's registered office is situated at 1 Eversholt Street, London NW1 2DN, United Kingdom.

The company's and its subsidiaries' (together 'the group' or 'Network Rail') principal activities are detailed in the 'About us' section on pages 5 to 11.

Network Rail is organised as a single operating segment for financial reporting purposes.

The Secretary of State is the sole member of the Company.

2. Significant accounting policies

Basis of accounting

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the European Union, and therefore comply with Article 4 of the European Union International Accounting Standard regulation, and in accordance with interpretations of the IFRS Interpretation Committee.

The financial statements have been prepared on the historical cost basis, except for the revaluation of the rail network to a value determined using an income approach, the revaluation of investment properties, the measurement of certain financial assets and liabilities at fair value through profit and loss (FVTPL) and the measurement of derivative financial instruments at fair value.

The principal accounting policies adopted by the directors are set out below.

Adoption of new and revised standards

The accounting policies adopted in this set of financial statements are consistent with those set out in the annual financial statements for the year to 31 March 2018; except for the changes in accounting standards noted below.

The following accounting standards have become effective in the current year and were adopted and applied by the group:

i) IFRS 15 'Revenue from Contracts with Customers'. In the current year, the group has applied IFRS 15 Revenue from Contracts with Customers (as amended in April 2016), effective for periods commencing 1 January 2018. IFRS 15 establishes a comprehensive framework for determining when revenue should be recognised and how it should be measured. In adopting IFRS 15, the group has elected to adopt in line with the modified retrospective method which does not require comparative reporting figures to be restated.

The Group's accounting policies for its revenue streams are disclosed in detail under the heading 'Revenue recognition'. Apart from providing more extensive disclosures on the Group's revenue transactions (refer to note 3), trade and other receivables (note 17) and trade and other payables (note 18), the application of IFRS 15 has not had any impact on the financial position and/or financial performance of the Group. All relevant revenue streams have historically, under IAS 18, been recognised on satisfaction of contractual obligations, that meet the definition of 'performance obligations' under IFRS 15. For this reason, no retrospective adjustments to retained earnings were made under the modified retrospective method of transitioning to IFRS 15.

The grant income that Network Rail receives does not fall under IFRS 15; as such we have continued to recognise grant income in line with IAS 20 Accounting for Government Grants.

2. Significant accounting policies continued

ii) IFRS 9 'Financial Instruments'. This is a new standard that addresses the classification, measurement and recognition of financial assets and liabilities. It is effective for accounting periods starting after 1 January 2018 and therefore adopted in Network Rail's current annual accounts.

Financial assets
The group has assessed the impact on financial assets and with the exception of derivatives held at fair value through profit or loss, they will continue to be held at amortised cost as they are held-to-collect rather than traded assets and meet the 'solely payments of principal and interest' test.

As financial assets, the receivables disclosed in the group accounts are subject to the new "Expected Credit Loss model." The group's exposure to credit risk is limited largely to the property rental income, and no significant increase in credit risk has materialised. See 'Impairment of financial assets' accounting policy and Note 17: Trade and other receivables for more details.

The impact on the classification of financial assets, as a result of transitioning from IAS 39 to IFRS 9 is as follows:
- Cash and cash equivalents - reclassified from 'loans and receivables' to 'at amortised cost' under IFRS 9
- Trade and other receivables - reclassified from 'loans and receivables' to 'at amortised cost' under IFRS 9
- Derivative financial instruments – unchanged from 'fair value through profit or loss' under IFRS 9

Financial liabilities
The group has assessed the impact on financial liabilities and with the exception of derivatives held at fair value through profit or loss and loan instruments previously designated at fair value through profit or loss, they will continue to be held at amortised cost.

The impact on classification of financial liabilities, as a result of transitioning from IAS 39 to IFRS 9 is:
- Loans and debt (except for those designated at fair value through profit or loss) - unchanged from 'at amortised cost' under IFRS 9 (refer to 'Debt' accounting policy for further detail)
- Trade and other payables - unchanged from 'at amortised cost' under IFRS 9
- Derivative financial instruments – unchanged from 'fair value through profit or loss' under IFRS 9

Hedge accounting
With regards to hedge accounting, almost all the hedged events have now occurred and there will be no new hedging programme. The group have opted to continue to apply the hedge accounting requirements of IAS 39 until the hedging programme is finalised.

IFRS 16 'Leases'
IFRS 16 'Leases' establishes principles for the recognition, measurement, presentation and disclosure of leases, with the objective of ensuring that lessees and lessors provide relevant information that faithfully represents those transactions. The standard is effective for accounting periods starting after 1 January 2019 and will therefore be effective from 1 April 2019 in Network Rail's accounts.

Network Rail intends to apply the modified retrospective transition approach and will not restate comparative amounts for the year prior to first adoption. This transition method allows for the lease liability to be based on the remaining payments, and then sets the right-of-use asset as an amount equal to lease liability (adjusted for any accrued or prepaid amounts recognised under IAS 17). Therefore, there is no impact on equity at the date of initial application.

The following other exemptions will be elected with the adoption of IFRS16:
- Elect not to measure leases that terminate within 12 months of the date of transition to IFRS16.
- Elect not to measure leases where the underlying asset is of low-value (<£5,000).
- Exclude initial direct costs from the measurement of right-of-use assets.
- Elect to use hindsight to determine lease term (e.g. in determining the lease term if options exist).
- Elect to take forward the previous identification of a lease applying IAS 17 and IFRIC 4 at the start of the relevant accounting period, also known as 'grandfathering'

The standard will require lessees to account for all leases on their balance sheets, including those which had previously been treated as operating leases and accounted for in the Income Statement as an "in-year" expense. Had this standard been adopted in 2018-19 Network Rail's assets and liabilities would have been grossed up by approximately £390m and the loss for the year would have been increased by approximately £10m.

Notes to the financial statements continued

2. Significant accounting policies continued

The following key judgements have been made by management regarding both the recognition as well as calculation of leases under IFRS 16:

- The marginal rate of borrowing will be used to calculate the right of use asset and lease liability unless the implicit rate can reliably be determined in the contract.
- Where practically possible lease components will be separated from the larger contracts to calculate the right of use asset. This is especially notable in contracts which contain embedded leases.

IFRS 17 Insurance Contracts

IFRS 17 has been adopted by the IASB for periods beginning on or after 1 January 2021 and has not currently been endorsed by the EU. Management have not yet considered the impact of the standard on Network Rail.

Going concern

The group's business activities, together with the factors likely to affect its future development, performance and position are set out in the 'About us' section on pages 5 to 11, and 'Business unit summaries' on pages 23 to 61. The financial position of the group, its cash flows, liquidity position and borrowing facilities are described in the Chief Financial Officer's review on pages 12 to 17.

The group has considerable financial resources together with long-term contracts with a number of customers and suppliers. Network Rail does not expect to undertake any new borrowing in the next 12 months. Instead it's activities will be largely funded by grants from the Department for Transport and revenue from customers. Network Rail has secured a £32.3bn loan facility with the Department for Transport (DfT), which it intends to draw upon to specifically refinance its' existing debt with DfT legacy commercial borrowing. This facility remains within its parameters.

Network Rail has eight separate grant agreements in place with DfT and Transport Scotland (TS) to fund activities in the next 12 months. These grants are: - with DfT - Network Grant; Enhancements Grant; British Transport Police Grant; Financing Costs Grant for DfT interest; Financing Costs Grant for external interest (bonds and swaps); and Corporation Tax Grant - with TS - Network Grant and Enhancements Grant.

Business plans and financial models are used to project cash flows and monitor financial risks and liquidity positions, forecast future funding requirements and other key financial ratios, including those relevant to our network licence. Analysis is undertaken to understand the resilience of the group and its business model to the potential impact of the group's principal risks, or a combination of those risks. This analysis takes account of the availability and effectiveness of the mitigating actions that could realistically be taken to avoid or reduce the impact or occurrence of the underlying risks. The board considers the likely effectiveness of such actions through regular monitoring and review of risk management and internal control systems. Further details are set out in the Viability Statement on pages 78 and 79. In addition, Note 25 to the accounts includes the group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and hedging activities; and its exposures to credit, liquidity and foreign exchange risk.

After making enquiries, including those detailed above, the directors have a reasonable expectation that the company and the group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual report and accounts.

Basis of consolidation

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Transactions with non-controlling interests that do not result in a loss of control are accounted for as equity transactions. In terms of subsidiaries the group:

- Consolidates subsidiaries from the date on which control passes to the group and deconsolidates from the date control ceases;
- Changes the accounting policies of subsidiaries, where necessary, to ensure consistency with the policies adopted by the group;
- Eliminates intercompany transactions and balances in the group results.

Revenue recognition

The group recognises revenue from the following major sources:

- Grant income – recognised in accordance with IAS 20;
- Franchised network access – recognised in accordance with IFRS 15;
- Freight revenue - recognised in accordance with IFRS 15;
- Property rental income – recognised in accordance with IAS 17/IFRS15; and
- Other income – recognised in accordance with IFRS 15.

Network Rail's grant income is recognised in line with IAS 20 'Accounting for Government Grants' – refer to 'Grants' accounting policy.

Network Rail's recognition approach is to recognise franchised network access and freight revenue each period in the financial year.

2. Significant accounting policies continued

Performance obligations are based upon fixed and variable volume access to the railway during the relevant year. Performance obligations are satisfied by providing track access over time as per agreement with the train operating companies. There are no significant judgments applied to determine whether performance obligations have been satisfied. The input method is applied based on time lapsed.

Network Rail recognises property rental income over time as the tenant receives and consumes the benefits throughout the contract (and financial year). Performance obligations are based upon making the lease available to the customer over a set period of time. Performance obligations are satisfied by providing access to leased property along with fulfilment of lease terms relevant to the lessor. There are no significant judgments applied to determine whether performance obligations have been satisfied. The input method is applied to recognise revenue over time, based on time lapsed.

Other income consists of Non Franchised fixed and variable network access which will be recognised using the same policy as for Franchised Network access.

Revenue is measured based on consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. Revenue represents amounts derived from the management and provision of assets for use in the operation of the railway and property rental income net of value added tax. Amounts recognised take account of any performance penalties or bonuses in respect of the year. The performance penalties and bonuses are estimated in each 4 week period based on that period's performance and reflect management's best estimate of the amounts due.

Revenue measurement has remained unchanged upon transitioning to IFRS 15, and includes supplements to the access charges and bonuses receivable from, less penalties and rebates payable to, customers and stakeholders. Operating expenditure includes additional contract amounts and bonuses payable to, less penalties receivable from, suppliers and the Office of Rail and Road.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable. This is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Separate accounting policies have not been adopted for revenue related contract assets / liabilities (deferred income), as the impact of IFRS 15 classification, recognition and measurement is insignificant.

Grants

Grants and other contributions received towards the cost of property, plant and equipment are deducted from the fair value of assets which the grant funding relates to, and released to the income statement over the estimated useful economic life of the rail network.

Revenue grants earned for the management and provision of rail network assets are credited to the income statement in the period to which they relate.

Leasing

Leases are classified as finance leases when the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The group as lessor

Amounts due from lessees under finance leases are recorded as receivables at the amount of the group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the group's net investment outstanding in respect of the leases.

Rental income from operating leases and initial direct costs are recognised on a straight-line basis over the term of the relevant lease.

The group as lessee

Assets held under finance leases are recognised at their fair value as assets of the group or, if lower, at the present value of the minimum lease payments. Each is determined at the inception of the lease. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to the income statement, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the group's general policy on borrowing costs.

Rentals payable under operating leases are charged to the income statement on a straight-line basis over the term of the relevant lease.

Foreign currencies

Monetary assets and liabilities expressed in foreign currencies are translated into sterling at the exchange rates prevailing at the balance sheet date. Foreign currency amounts are initially recorded at the exchange rates prevailing on the dates of the transactions. Gains and losses arising on retranslation are included in the income statement for the period and are classified as either operating or financing depending on the nature of the monetary item giving rise to them.

Notes to the financial statements continued

2. Significant accounting policies continued

Borrowing costs
Borrowing costs directly attributable to the construction of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use.

All other borrowing costs are recognised in the income statement in the period in which they are incurred.

Operating profit
Operating profit is stated before finance income, finance costs, other gains and losses, and revaluation movements and profits on disposal of properties.

Retirement benefit costs
Payments to the defined contribution retirement benefit scheme are charged as an expense as they fall due.

For the defined benefit schemes, the cost of providing benefits is determined using the projected unit credit method, with full actuarial valuations being carried out at least every three years and updates to these valuations carried out in intervening years. The current service cost and plan administration expenses are recognised as an operating expense in the consolidated income statement.
The group's share of the actuarial gains and losses are recognised in full in the period in which they occur. They are recognised outside the income statement and presented in the statement of comprehensive income.

The net interest cost is the charge in the year on the net defined benefit liability. The charge reflects the passage of time and is recognised as a finance cost in the income statement.

Past service cost and credits are recognised immediately in the consolidated income statement.

The retirement benefit obligation recognised in the balance sheet represents the present value of the defined benefit obligation, as adjusted for unrecognised past service cost, and as reduced by the fair value of scheme assets. Any asset resulting from this calculation is limited to past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

The group reflects its share of the obligation in the financial statements. The IAS 19 deficit, service cost and interest cost therefore represent 60 per cent of the total for each of the schemes. Further details on the retirement benefit schemes are provided in note 26.

Research and development
Research and general development expenditure is charged to the income statement as incurred. Expenditure on the development of specific projects is capitalised only if all of the following conditions are met:
- An asset is created that can be identified
- It is probable that the asset created will generate future economic benefits
- The development cost of the asset can be measured reliably.

Tax
The tax expense represents the sum of the current tax and deferred tax. The group's current tax liability is calculated using the tax rates that have been enacted or substantively enacted by the balance sheet date.

Current tax is based on the taxable results of the group and calculated in accordance with tax rules in the United Kingdom.

Deferred tax is the tax expected to be payable or recoverable on the temporary differences that arise when tax authorities recognise and measure assets and liabilities with rules that differ from those of the consolidated accounts. Deferred tax is calculated under the balance sheet liability method at the rate of tax expected to prevail, subject to the rate being enacted or substantively enacted by that date, when the temporary differences reverse. Deferred tax is not discounted.

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised on all deductible temporary differences to the extent that it is probable that there will be taxable profits available against which the temporary timing differences can be utilised.

Deferred tax is charged or credited in the income statement except when it relates to items charged or credited directly to equity. In this case the deferred tax is also accounted for within equity.

Property, plant and equipment – the rail network
The group has one class of property, plant and equipment, being the rail network. This is the integrated network that the group uses to deliver the operation, maintenance and renewal of Great Britain's national rail infrastructure.

Valuation methodology
The rail network is carried in the balance sheet at its fair value. As there is no active market in railway infrastructure assets, the company has derived the fair value of the rail network using an income approach. The income approach assesses the discounted future cash flows that are expected to be generated by the rail network, including an assessment of under and outperformance against the current 5-year regulatory determination.

2. Significant accounting policies continued

This valuation is carried out twice a year and revaluation gains and losses are reflected in other comprehensive income.

Depreciation
The rail network is depreciated on a straight-line basis over its estimated weighted average remaining useful economic life. The estimated weighted average remaining useful economic life of the network is currently 40 years (2018: 40 years). The remaining useful economic lives of network assets are estimated annually, with external verification of the valuation and asset lives carried out where required.

Capitalisation of operating costs
In line with IAS 16 Property, plant and equipment all directly attributable costs necessary to deliver the investment programme are capitalised. Employee and other associated costs are capitalised if they arise directly as a result of delivering the investment programme.

Presentation of capital grants
Grants and other contributions received towards the cost of property, plant and equipment are deducted from the fair value of assets which the grant funding relates to. See Note 12. Property, plant and equipment – the rail network for detail of the gross and net values of capital grants included in the property, plant and equipment balance.

Investment property
Investment property, which is property held to earn rentals and/or for capital appreciation, is stated at its fair value at the balance sheet date. Gains and losses from changes in the fair value of investment property are included in the income statement for the period in which they arise.

Intangible assets
An intangible asset is only recognised if it is probable that future economic benefits will flow to the group and its costs can be measured reliably. Intangible assets are measured initially at purchase cost and are amortised on a straight-line basis. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for its intended use. Licences and concessions are amortised over the length of their contractual agreement. Intangible assets are tested for impairment at each balance sheet date by comparing their carrying value and the expected discounted cash flows expected to arise from them over their contractual agreements. If the carrying value exceeds the discounted cash flows expected to arise from the assets, the carrying value would be impaired accordingly.

Assets held for sale
Non-current assets are classified as held for sale if it is highly probable that they will be recovered primarily through sale or distribution rather than through continuing use.

Immediately before classification as held for sale, the assets are re-measured in accordance with the accounting policies for the asset category. Subsequently, the assets are held at the lower of carrying value and fair value less costs to sell. Any impairment loss on a disposal group is recognised immediately in the income statement. For the assets held for sale in these financial statements, Network Rail has opted to use the valuation as at 30 September 2017 as a proxy for the value of the assets immediately before classification date.

Inventories
Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method.

Financial instruments
Financial assets and financial liabilities are recognised on the group's balance sheet when the group becomes party to the contractual provisions of the instrument.

Financial assets

Financial assets at amortised cost
Financial assets are classified as at amortised cost where the business model is to hold assets in order to collect contractual cash flows, and the cash flows consist solely of payments of principal and interest (SPPI) on the principal amount outstanding.

Trade receivables do not carry any interest and are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts, recognised in the income statement.

Financial assets at FVTPL
Financial assets are classified as at FVTPL where the asset does not meet the amortised cost criteria, and, if doing so, eliminates or significantly reduces or eliminates a measurement or recognition inconsistency. Gains and losses arising from changes in fair value of these assets are recognised in profit or loss for the period.

Notes to the financial statements continued

2. Significant accounting policies continued

Impairment of financial assets
Financial assets, other than those at FVTPL, are assessed for indicators of impairment at each balance sheet date. Financial assets at FVTPL are stated at fair value with any resultant gain or loss recognised in the income statement. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been reduced.

The carrying amount of the financial asset is reduced by the impairment loss for all financial assets with the exception of trade receivables, which are reduced by allowances for irrecoverable amounts. As financial assets, trade receivables are subject to the "Expected Credit Loss model" under IFRS 9. The group's exposure to credit risk is limited largely to property rental income, and no significant increase in credit risk has materialised. Therefore, the group has continued to recognise 12 month expected losses that are updated at each reporting date, in the form of allowances for irrecoverable amounts, which approximate the expected losses for the next 12 month period.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through the income statement. The reversal is only made to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

Cash and cash equivalents
Cash and cash equivalents comprise bank balances held by the group, commercial paper and money market deposit investments at varying rates. The carrying amount of these assets approximates their fair value.

Joint ventures
The results and net assets of joint ventures are incorporated in these financial statements using the equity method of accounting. Investments in joint ventures are carried in the balance sheet at cost and adjusted by post-acquisition changes in the group's share of net assets of joint ventures, less any impairment in the value of individual investments. Losses of a joint venture in excess of the group's interest in a joint venture are not recognised.

Financial liabilities
Financial liabilities are classified according to the substance of the contractual arrangements entered into.

Financial liabilities at FVTPL
Financial liabilities are classified as at FVTPL where the financial liability is a derivative financial liability or designated at FVTPL at initial recognition.

A financial liability is designated as FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise exist.

The group derecognises financial liabilities when, and only when, the group's obligations are discharged, cancelled or expire.

Debt
Debt instruments not designated at FVTPL are initially measured at fair value, net of discount and direct issue costs, and subsequently recognised at amortised cost using straight line amortisation as a proxy for the IFRS 9 effective interest rate method. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accrual basis to the income statement using the effective interest rate method, and are added to the carrying value of the debt instrument to the extent that they are not settled in the period in which they arise.

Certain bonds, as set out in Note 19, are designated at FVTPL. These bonds are hedged by derivative financial instruments as part of a documented risk management strategy. By recognising these bonds and derivatives at FVTPL the recognition inconsistencies that would otherwise exist with regard to these risk management strategies are significantly reduced.

Trade payables
Trade payables are ordinarily not interest bearing and are stated at amortised cost.

Derivative financial instruments and hedge accounting
The group's activities expose it primarily to the financial risks of changes in interest rates and foreign currency exchange rates. The group uses interest rate swaps, cross-currency swaps and foreign exchange forward contracts to hedge these exposures. The use of financial derivatives is governed by the group's policies approved by the treasury committee of the board, which provide written principles on the use of financial derivatives.

Almost all the hedged events have now occurred and there will be no new hedging programme. Under IFRS 9, the group have opted to continue to apply the hedge accounting requirements of IAS 39 until the hedging programme is finalised.

Derivatives are initially recognised at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each balance sheet date. Derivatives are presented on the balance sheet in line with their maturity date.

2. Significant accounting policies continued

The group designates certain hedging instruments as either cash flow hedges or fair value hedges. At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the group documents whether the hedging instrument that is used in a hedging relationship is highly effective in offsetting changes in fair value or cash flows of the hedged item.

Some derivatives, while complying with the group's financial risk management policies, do not qualify for hedge accounting and are therefore classifed as financial instruments at FVTPL. Changes in the fair value of derivative financial instruments that do not qualify for cash flow hedge accounting are recognised in the income statement as they arise.

Cashflow hedge accounting is discontinued when the hedging instrument expires, is sold, terminated, exercised or no longer meets the criteria for hedge accounting. Where the hedging instrument no longer meets the criteria for hedge accounting, the cumulative gain or loss on the hedging instrument that remains recognised directly in equity from the period when the hedge was effective remains in equity until the forecast transaction occurs.

In the instance where cashflow hedge accounting is discontinued since the forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument that remains recognised directly in equity from the period where the hedge was effective is recognised in the income statement.

Embedded derivatives within a financial asset host contract are not separated from the host contract, instead, the whole contract in its entirety is accounted for as a single financial instrument.

Embedded derivatives within a host contract that is a financial liability are separated from the host contract and accounted for as a derivative financial instrument when economic characteristics of the embedded derivative and host are not closely related, an identical instrument (with the same terms) would meet the definition of a derivative, and the entire contract is not measured at fair value through profit or loss. Gains or losses from the movement in fair value of the financial instrument are reported in the income statement. There are no separated embedded derivatives included in the financial statements.

Note 20 sets out details of the fair values of the derivative instruments used for hedging purposes. Movements in the hedging reserve in equity are detailed in the statement of changes in equity and in the statement of comprehensive income.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged item that is attributed to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognised within 'other gains and losses' in the income statement.

Cash flow hedges

Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows are recognised in other comprehensive income, and the ineffective portion is recognised immediately within 'other gains and losses' in the income statement.

Provisions

Provisions are recognised when the group has a present obligation as a result of a past event, and it is probable that the group will be required to settle that obligation. Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

Notes to the financial statements continued

2. Significant accounting policies continued

Critical accounting judgements and key sources of uncertainty

(i) Property, plant and equipment – the rail network: the estimate of the fair value of the rail network is based on an income approach using the regulatory asset base, which equates to the discounted future cash flows associated with the network, adjusted for the net present value of any variances from the Office of Rail and Road's determination using the building block model of regulation.

The most significant judgement underpinning the valuation is that the regulatory framework and associated cash flows remain sufficiently stable and robust to form the basis of a third party valuation. Management assess that based on the current regulatory environment, an investor could reasonably expect to recover the RAB value through the revenue deriving from future amortisation allowances and the regulatory return thereon. In its assessment management has considered the amendments to the regulatory framework that are set out in the regulator's determination for Control Period 6 (2019-2024), and noted that although the regulated asset base will cease to be a building block in the determination of the company's revenue requirement, the link between income and the regulated asset base would be reinstated in the event that the rail network asset were transferred to a private owner.

Management have also considered whether the portfolio of assets held for sale should continue to be deducted against the RAB in arriving at the fair value of the rail network, and based on an assessment of likely regulatory action in the event of a sale, have concluded that this remains appropriate. Further detail on this and other key judgements applied in the valuation are set out in Note 12.

The key source of estimation uncertainty within the valuation is the assessment of future performance against the regulatory determination which is discussed in more detail in Note 12.

Whilst not affecting the fair value of the asset recognised at the balance sheet date, management's assessment of the remaining life of the asset affects the depreciation that is charged on the asset, is also an area of estimation uncertainty. IAS 16 requires that management regularly review asset lives on at least an annual basis and that that depreciation is charged on a systematic basis that reflects the way the asset is consumed. In March 2019 Network Rail produced a detailed and rigorous depreciated replacement cost (DRC) valuation of the rail network for inclusion in DfT's group accounts. In preparing these financial statements management reviewed the weighted average remaining asset lives as produced in the DRC valuation and concluded that it is still appropriate to use 40 years as the weighted average remaining life.

Cost of Work Done (COWD): The additions to Property, plant and equipment are valued using an estimate of the cost of work done in the year to 31 March. To the extent that the COWD is greater than the invoiced amount, a PPE addition and 'other payable' (Note 19) are recognised on the basis of expected amounts required to settle contractual obligations. COWD assessments are predominantly based on information readily available to project managers on the status of works, but some estimation uncertainty is involved in the year-end measurement, in respect of the evaluation of how contractual dispute positions are likely to resolve, and in measuring the value of works performed at the precise year end date.

(ii) Investment property – an element of the investment property portfolio valuation is determined using the Beacon method. Jones Lang LaSalle provided their assessment of yields for 18 classes of property and areas in the portfolio. These are then used to produce income multipliers and applied to the rental streams from each of the individual properties in the portfolio to form an overall valuation. For investment property transferred to assets held for sale this is also the inherited method of valuation. The transfer occurred on 24 November 2017; the valuation as at this date is regarded as the carrying value of these assets and the frozen ceiling valuation for assets held for sale. Further details are set out in Note 13.

(iii) Retirement benefit obligations – the group recognises and discloses its retirement benefit obligation in accordance with the measurement and presentational requirement of IAS 19 (Revised) '*Employee Benefits*'. The calculations include a number of judgements and estimations in respect of the expected rate of return on assets, the discount rate, inflation assumptions, the rate of increase in salaries and life expectancy among others. Changes in these assumptions can have a significant effect on the value of the retirement benefit obligation. The key assumptions made are set out in Note 26. The total contribution rate payable under the Railway Pension Scheme (RPS) and the Career Average Revalued Earnings (CARE) scheme is normally split in the proportion 60:40 between the group and the members, respectively. The group reflects its share of the contribution in the financial statements.

(iv) Taxation – the group recognises and discloses its deferred tax assets in accordance with IAS 12. Where it is considered to be probable that deferred tax assets can be matched to future taxable profits then deferred tax assets are recognised, or offset against the overall deferred tax provision as appropriate. This evaluation requires significant judgements to be made, including the uncertainty of the availability of future taxable profits. Further details are set out in Note 10.

3. Revenue

	2019 Group £m	2018 Group £m
Grant income	4,125	4,480
Franchised network access	2,143	1,707
Freight revenue	58	53
Property rental income	317	306
Other income	33	34
Revenue	**6,676**	**6,580**

The effect of the performance regimes was a net loss of £439m (2018: net loss of £232m) which led to a reduction in revenue of the respective amount.

The group has assessed its revenue recognition in accordance with IFRS15 and has deemed that it derives the vast majority of its revenue over-time. Revenue recognised at a point in time is not material in the financial year and therefore is not disclosed separately.

Grant income, franchised network access, freight revenue and property rental income, recognised in line with the accounting policies, were recognised upon fulfilment of the contractual performance obligations, by providing track access or access to rental property, in line with the terms of the existing customer contracts. Recognition is over time, and the input method, specifically time lapsed, is used as the basis for revenue recognition. There are no alternative performance obligations identified for individual contracts within the disaggregated revenue streams.

There are no recognised contract assets, as defined by IFRS 15, that relate to recognised revenue disaggregated in the above table.

4. Net operating costs

	2019 Group £m	2018 Group £m
Employee costs (see Note 6)	2,561	2,419
Own costs capitalised	(1,055)	(998)
Other external charges (including infrastructure maintenance costs)	2,435	2,094
Other operating income and recoveries	(364)	(323)
Net operating costs before depreciation and amortisation	**3,577**	**3,192**
Depreciation (see Note 12)	1,810	1,638
Amortisation of grants	(144)	(99)
Net operating costs	**5,243**	**4,731**

Notes to the financial statements continued

5. Profit from operations

Total profit from operations is stated after charging/(crediting):

	2019 Group £m	2018 Group £m
Amortisation of intangible assets	**1**	**1**
Profit on sale of properties	**(328)**	**(75)**
Increase in the fair value of investment properties	**(35)**	**(117)**
Cost of inventories recognised as an expense	**220**	**192**
Write downs of inventories recognised as an expense	**3**	**1**

Amounts payable to auditors		
Fees payable to the company's auditors for the audit of the company and consolidated financial statements	0.43	0.38
Fees payable to the company's auditors for audit related services		
– The audit of the company's subsidiaries	0.09	0.05
– Regulatory accounts audit and interim review	0.07	0.08
Total amounts payable to auditors	0.59	0.51

For financial years ended 31 March 2019 and 2018 no fees were payable to the company's auditors in respect of non-audit related services. In addition to the audit fee information given in the table the group pays £0.11m for the audit of subsidiaries that are not performed by the group auditor.

6. Employee costs

The monthly average number of employees (including executive directors) was:

	2019 Group Number	2018 Group Number
Management and operation of the railway	**40,268**	**39,370**

	2019 Group £m	2018 Group £m
Their aggregate remuneration comprised:		
Wages and salaries	**2,050**	**1,929**
Social security costs	**227**	**215**
Defined contribution pension costs (see Note 26)	**20**	**19**
Defined benefit pension costs – current service costs (see Note 26)	**257**	**256**
Defined benefit pension costs – past service costs (see Note 26)	**7**	**-**
Total employee costs	**2,561**	**2,419**

On 26 October 2018 the High Court ruled on the Lloyds case that Guaranteed Minimum Payment ("GMP") equalisation is required. We have carried out calculations following the ruling to determine the appropriate accounting reserve to reflect the impact of GMP equalisation and estimate that the impact would be an increase in the Section's liabilities of 0.1 %. This impact has been recognised as a past service cost in the 2018/19 Income Statement.

In the years ended 31 March 2019 and 31 March 2018 key management personnel were all the executive directors and the chair of the board of directors. Full details of their remuneration are included within the annual remuneration report on pages 111 to 123.

7. Finance income

	2019 Group £m	2018 Group £m
Interest receivable on investments and deposits	**11**	**8**
	11	**8**

Finance income earned on financial assets analysed by category of asset, is as follows:

	2019 Group £m	2018 Group £m
Financial assets at amortsied cost (including cash and bank balances)	**11**	**8**
	11	**8**

8. Other gains and losses

	2019 Group £m	2018 Group £m
Net ineffectiveness arising from cash flow hedge accounting	(7)	7
Fair value loss on fair value hedges	(220)	(445)
Fair value gain on carrying value of fair value hedged debt	226	449
Gain arising from fair value hedge accounting	6	4
Net (decrease)/increase in fair value of non-hedge accounted debt	(3)	21
Gain on derivatives not hedge accounted	224	202
Gain arising from non-hedge accounting	221	223
Total other gains	**220**	**234**

No other gains and losses have been recognised in respect of financial assets or liabilities other than those disclosed in this note. No gains or losses have been recognised on financial liabilities measured at amortised cost other than those disclosed in Note 9.

The movements in the hedged risk adjustment on fair value hedged debt, the movement in fair value of debt designated as fair value through profit and loss and exchange differences on retranslation of foreign currency debt that form part of the above total other gains and losses are in relation to debt issuances disclosed in Note 19.

9. Finance costs

	2019 Group £m	2018 Group £m
Interest on bank loans and overdrafts	8	22
Interest on loan issued by Department of Transport	674	551
Interest on bonds issued under the Debt Issuance Programme	1,148	1,331
Interest on derivative instruments	232	164
Defined benefit pension interest cost	55	57
Debt Issuance Programme financial indemnity fee	266	281
Other interest	-	1
Total borrowing costs	**2,383**	**2,407**
Less: capitalised interest	(183)	(174)
Total finance costs	**2,200**	**2,233**

Borrowing costs are included in the costs of qualifying assets to the extent that the asset is financed by the group. The average rate used during the year was 3.7 per cent (2018: 4.5 per cent).

10. Tax

	2019 Group £m	2018 Group £m
Current tax:		
Corporation tax charge	-	-
Adjustment in respect of prior years	(1)	2
Total current tax (credit) / charge	**(1)**	**2**
Deferred tax:		
Current year charge / (credit)	53	(7)
Effect of rate change	-	-
Adjustments in respect of prior years	-	(22)
Total deferred tax charge/(credit)	**53**	**(29)**
Total tax charge/(credit)	**52**	**(27)**

The tax (charge)/credit for the year can be reconciled to the (loss) / profit per the income statement as follows:

	2019 Group £m	2018 Group £m
(Loss)/ Profit before tax	(173)	48
Tax at the UK corporation tax rate of 19 per cent (2018: 19 per cent)	33	(9)
Adjustments in respect of prior years	(1)	21
Income not subject to tax	(43)	(10)
De-recognition of deferred tax assets recognised in the year	(40)	-
Utilisation of tax losses previously derecognised	(1)	25
Tax (charge)/credit for the year	**(52)**	**27**

Under IAS12 deferred tax assets can only be recognised where it is probable that taxable profits will be available against which the deferred tax asset can be utilised. As in 2018, it remains improbable that Network Rail will produce a level of taxable profits that will allow for recognition of a deferred tax asset relating to the trading losses carried forward. Additionally, whilst taxable income does not exceed allowable deductions in the year, Network Rail claims only the capital allowances sufficient to claim for group relief and available tax credits.

Deferred tax at 31 March 2019 is calculated at a rate of 17 per cent (2018: 17 per cent) based on tax rate expected to prevail based on legislative enactments at the point temporary differences resolve.

UK corporation tax is calculated at 19 per cent (2018: 19 per cent). Further reductions to the UK tax rate have been enacted which reduced the rate to 19 % with effect from 1 April 2017 and to 17 per cent by 1 April 2020.

The Group has £36.9m (2018: £36.9m) of surplus advanced corporation tax carried forward. No deferred tax asset has been provided.

11. Intangible assets

Group	Concession £m
Cost	
At 1 April 2017, 31 March 2018 and 31 March 2019	78
Accumulated amortisation	
At 31 March 2017	**(13)**
Charge for the year	(1)
At 31 March 2018	**(14)**
Charge for the year	(1)
At 31 March 2019	**(15)**
Carrying amount	
At 31 March 2019	**63**
At 31 March 2018	**64**

The intangible assets above relate to seperable economic rights associated with the concession to run the operations, maintenance and renewal business of the Channel Tunnel Rail Link, and are held by the wholly owned company Network Rail (High Speed) Limited.

Intangible assets are being amortised over the life of the licence of 83 years to 2086. Amortisation is charged to net operating costs in the income statement.

12. Property, plant and equipment – the rail network

	Group assets £m	Group capital grants deferred £m	Group carrying value £m
Valuation			
At 31 March 2017	**62,730**	**(3,525)**	**59,205**
Additions	6,634	(822)	5,812
Transfer to investment properties	(3)	-	(3)
(Depreciation charge)/grant amortisation for the year	(1,638)	91	(1,547)
Revaluation in the year	675	-	675
At 31 March 2018	**68,398**	**(4,256)**	**64,142**
Additions	7,043	-	7,043
Capital grant additions	-	(637)	(637)
(Depreciation charge)/grant amortisation for the year	(1,810)	97	(1,713)
Revaluation in the year	2,632	-	2,632
At 31 March 2019	**76,263**	**(4,796)**	**71,467**

Given the economic and physical interdependency of the assets comprising the rail network, the company has concluded that the rail network is considered as a single class of asset. The rail network is carried at its fair value.

As there is no active market in railway infrastructure assets, the company has derived the fair value of the rail network using an income approach. Under this approach the cash flows that a network licence holder expects to generate from the rail network are assessed using a market rate of return. This valuation is carried out twice a year and revaluation gains and losses are reflected in other comprehensive income.

The independent rail regulator, the Office of Rail and Road (ORR), has stated (in the 2018 periodic review final determination: Supplementary document – financial framework) that a private network licence holder of the railway network would have its revenue requirement determined using the building block model of regulation. Under this model the network licence holder's annual income (received in the form of the network grant and track access charges) would comprise:

a) The regulator's assessment of the efficient costs of operating and maintaining the network

b) An allowance for Regulatory Asset Base (RAB) amortisation – qualifying capital expenditure is added to the RAB as incurred and recovered by the company through future amortisation allowances (in order to spread the cost to customers and stakeholders of investment in the rail network over many years).

c) An allowed return on the RAB – calculated by applying the rate of return permitted by the ORR (based on its assessment of the market's cost of capital) to the RAB balance.

In the determination for Control Period 6 (2019-2024), published on 12 June 2018, ORR explains that from 1 April 2019 the RAB will no longer be a building block in the determination of the company's revenue requirement, but that the previous method of revenue determination would be restored if the rail network asset were to be transferred to a private owner. IFRS 13 Fair Value Measurement requires management to assess fair value from the perspective of a theoretical market participant, rather than on the basis of the value-in-use. Accordingly, the amendments made to the regulatory framework for Control Period 6, which reflect the proximity of Network Rail to the public sector and which would not apply to a market participant, are not relevant to the valuation.

Future cash flows under (a) are assumed to be equivalent over time to the network licence holder's actual costs of operation and maintenance, on the basis that the Regulator aims to set targets which are ambitious but achievable. These therefore have no net impact on forecast future cash flows, or the valuations. The allowed return (c) is based on a cost of capital which would be offset in a discounted future cash flows model (see Discount rate below). The economic rights inherent in ownership of the regulated rail network asset are therefore vested primarily in the value of the RAB, which will be recovered through future regulated income as the RAB is amortised (b).

This means that it is possible for the RAB itself to be used as the starting point for a discounted cash flow valuation. The RAB fluctuates in valuation; increasing in value principally as a result of allowances for capital expenditure and inflation indexation, whilst reducing for amortisation. The adjustments may give rise to upwards or downwards revaluations. Further changes are subject to:

a) Adjustment for any difference between regulatory rate of return and the market cost of capital that a third party investor would use to assess the value of the network (the rate of return and market cost of capital are currently assessed as fully aligned); and

b) Adjustment for forecast future under or out performance against the regulatory determination over the remainder of the current control period. No adjustment is made in respect of future control periods on the expectation of the Regulator setting, over the long term, ambitious but achievable determination. See forecast performance variation below.

12. Property, plant and equipment – the rail network continued

When valuing the network, management is required to consider the value a knowledgeable willing party would place on the network in an arm's length transaction. On the grounds that third party investors are known to value the assets of regulated companies by reference to the RAB, and that the cash flows associated with the regulatory framework are considered sufficiently stable and robust to form the basis of a third party valuation, management has used the RAB as the starting point for its valuation.

Third party funding

Additions to the railway network funded by capital grant, rather than via the RAB funding mechanism, are included in the valuation at cost. The carrying value of property, plant and equipment is calculated after netting off associated grant funding received or receivable.

Depreciation

The depreciation charge for any year is calculated using the average carrying value for the year and the estimated remaining weighted average useful economic life of the rail network. The remaining weighted average useful economic life of the rail network was calculated using the engineering assessment of serviceable economic lives of the major categories that comprise the rail network. The estimated remaining weighted average useful economic life of the network is currently 40 years (2018: 40 years).

Discount rate

The discount rate used in the income approach is the pre-tax rate of return set by the ORR. The ORR performs a periodic review every five years, which leads to the setting of the appropriate rate for the five-year period. The ORR's method encompasses advice from consultants, comparisons to similar infrastructure assets and discussions with Network Rail. Management believes this cost of capital reflects the assumptions that a market participant would make in arriving at a discount rate.

Should the ORR amend the permitted rate of return in future quinquennial reviews, the regulator would raise or lower the permitted charges to customers so as to achieve the new rate of return. In other words, the cash flows would change but the RAB would not.

The ORR confirmed that a conventionally funded market participant would receive an allowed return equal to the full market cost of capital. This has been reiterated in their final determination for CP6. Management expects that if the rail network asset were to be transferred to a private owner during CP6, ORR would determine the private owner's revenue requirement for CP6 using the pre-tax (CPI) WACC of 4.15 % set out in their final determination for this Control Period. Management expects that the rate of return set by the regulator in subsequent quinquennial reviews will be consistent with the market discount rates for infrastructure assets at the quinquennial review date.

Accordingly, the valuation includes a reassessment of this rate to determine whether it continues to reflect market conditions. This assessment is by reference to movements in observable market data, including the risk-free cost of borrowing, and changes in the weighted average cost of capital of listed utilities with similar gearing ratios. The following table shows the effect of changes in the market discount rate on the carrying value of the rail network and on the depreciation charge. The analysis only considers the effects of movements in the market discount rate until the end of Control Period 6 (2024), and not in perpetuity. The effect of changes in the market discount rate apply equally to increases and to decreases in discount rates.

	Change in cost of capital (basis points)	31 March 2019	31 March 2018
Change in fair value	25	**£835m**	**£173m**
	50	**£1,675m**	**£346m**
Percentage change in fair value	25	**1.2%**	**0.3%**
	50	**2.3%**	**0.5%**
Change in annual depreciation charge	25	**£21m**	**£6m**
	50	**£42m**	**£12m**

Forecast performance variations

In assessing the value of the rail network, management considers that a knowledgeable willing third party would take into account the perceived fairness and deliverability of the current regulatory determination. Accordingly management makes an addition (or deduction) to the valuation for its assessment of the likely ORR determination in respect of the financial consequences of anticipated future out (or under) performance against the regulatory determination.

Cost outturns on capital work (renewals and enhancements) have an impact on future cash flows under the regulatory framework, since only efficient overspending in excess of regulated cost targets can be added to the RAB.

At 31 March 2019 the valuation included £281m (2018: £1,326m) of projected financial underperformance, which is expected to crystallise in the income statement or result in the ineligibility of additions to the RAB over the next 5 years. Substantially all the balance from last year crystallised in 2018-19.

12. Property, plant and equipment – the rail network continued

At this point in the regulatory cycle out or under-performance is measured against the Delivery Plan 2019 which sets out how Network Rail will deliver its outputs in the period 2019-24. It was estimated that the cost of delivering planned outputs is most likely to be £281m more than the regulatory settlement across 5 years. The main reason for this is that train performance at the start of CP6 is at lower levels than assumed in the recent regulatory determination, which is forecast to result in financial underperformance stemming from compensation payments to passenger train operators under the performance regime. The Delivery Plan 2019 will be used to benchmark performance throughout CP6.

Critical judgements

The valuation includes the following critical judgements:

a) The regulatory framework, and associated cash flows remain sufficiently stable and robust to form the basis of a third party valuation. As noted above, the ORR has made it clear in its final determination for Control Period 6 that the amendments made to the regulatory framework for CP6 reflect the proximity of Network Rail to the public sector and the amendments would not apply to a market participant.

b) The ORR has committed to providing a market cost of capital return to a conventionally funded owner and operator of the network and the fair value calculation has been prepared on that basis. Accordingly, no adjustment has been made to the valuation in respect of the difference between the regulatory rate of return and a market participant cost of capital.

c) Management's assessment of the deliverability of the current regulatory determination is a good indication of how other management groups would perform against the determination.

d) The deliverability of the current 5-year regulatory determination does not have any implication for the deliverability of future determinations (i.e. the ambition of the regulator at the start of each Control Period is to set the regulatory determination at a level which is challenging but achievable).

e) The RAB includes historic expenditure on the company's investment properties. In accordance with IAS 40 Investment Property and IFRS 5 Non-current Assets Held for Sale and Discontinued Operations the fair value of investment property and assets held for sale is separately recognised in Notes 13 and 15 to the accounts. The fair value of the railway network excludes the fair value of RAB-funded investment properties (and assets held for sale) on the grounds that a private owner of the railway network would not expect to derive any future economic benefit from the sale of investment property (i.e. the regulator would make a downwards adjustment to the RAB for the value of any investment properties sold). The valuation performed at 31 March 2019 includes a downwards adjustment of £232m to exclude the fair value of investment property and assets held for sale (31 March 2018: £1,348m). The regulator has not reduced the RAB for the value of the non-core railway assets sold by the company in 2018-19 and this has led to a consequential increase in the fair value of the railway network.

At 31 March 2019 the group had entered into contractual commitments in respect of capital expenditure amounting to £2,113m (2018: £2,810m).

We have classified the valuation of the rail network as Level 3 under IFRS 13. The network's fair value is the estimated future cash flows that will be generated in perpetuity, discounted at the regulatory cost of capital, as set by the ORR in its Periodic Review. The cost of capital at which cash flows are discounted is the key unobservable input in the valuation. The full market cost of capital determined by the ORR is 3.71 % (2018:4.31 %) for the current control period, arrived at through advice from consultants, comparisons to similar infrastructure assets and discussions with Network Rail.

An increase in the market cost of capital would lead to a decrease in the valuation of the rail network and vice versa. However, the impact would be limited to the current control period as the regulator would re-evaluate the allowed return and reset it to the market rate at the next quinquennial review.

13. Investment property

	Group £m
Fair value	
At 31 March 2017	**1,231**
Additions	4
Disposals	(6)
Transfer (to)/from property, plant and equipment	3
Transfer (to)/from assets held for sale	(1,142)
Increase in fair value in the year	116
At 31 March 2018	**206**
Additions	-
Disposals	(14)
Transfer (to)/from property, plant and equipment	-
Transfer (to)/from assets held for sale (Note 15)	5
Increase in fair value in the year	35
At 31 March 2019	**232**

The market values of the group's investment properties at 31 March 2019 have been arrived at on the basis of a valuation carried out at that date in conjunction with Jones Lang LaSalle, external valuers not connected with the group. Network Rail Property undertake a detailed review of the investment property portfolio to allocate the portfolio to beacons which represent particular groups of property sharing the same characteristics. Network Rail Property apply yields provided by Jones Lang LaSalle to these beacon categories. Jones Lang LaSalle will also value specific properties, as instructed by Network Rail Property.

Management are satisfied that Jones Lang LaSalle hold a recognised and relevant professional qualification, and have had recent experience in the location and category of the investment property being valued. The fair value of the group's investment property portfolio is deemed to be the market value.

The valuation, which conforms to International Valuation Standards, was arrived at by splitting the portfolio between one-off individual properties to be valued separately and the remainder of the portfolio to be valued under the Beacon method.

Jones Lang LaSalle provided independent valuations of 8 one-off individual properties (2018: 6), amounting to 36 per cent (2018: 35 per cent) of the total valuation. The balance of the estate was valued under the Beacon method by splitting the portfolio into 18 homogeneous classes (2018: 13) of property and areas, assuming that the current passing rent received from these properties are in line with market rent. Jones Lang LaSalle independently assessed the appropriate yield to be adopted within each of these classes and areas. This enabled the directors to estimate market values by applying the provided yields to the net rental income from these properties, in accordance with a standard UK investment property valuation.

The property rental income earned by the group from assets categorised at the year end as investment property, all of which is leased out under operating leases, amounted to £18m (2018: £17m). Direct operating expenses arising on the investment properties in the year amounted to £4.4m (2018: £4.1m).

The group's investment properties are let on a tenant repairing basis. The group's maintenance obligations are limited to common areas and vacant property units.

Property valuations are by their nature subjective, as they are made on the basis of assumptions made by the valuer. They have been classified as Level 3 and the key inputs to the valuations, defined as 'unobservable' by IFRS 13, are analysed in the table below.

		Estimated rental value per sq. ft			Equivalent yield		
	Fair value at 31 March 2019 £m	Minimum £	Maximum £	Weighted average £	Minimum %	Maximum %	Weighted average %
Valuation Technique:							
One-off valuation	**84**	**0.66**	**248**	**5.38**	3.7	13.5	7.1
Beacon method*	**148**	**n/a**	**n/a**	**n/a**	5	15	7.7

* The Beacon methodology splits all the properties within the portfolio into 18 homogenous groups. The properties in each group are valued by applying a yield to the annual rent (passing or void) for the property. Yields applied are on the basis that the property is rack rented i.e. the current passing rent received from these properties are in line with market rent. As such, an estimated rental value per square feet for these properties is not available.

All other factors being equal, a higher yield would lead to a decrease in the valuation of a property and an increase in the current or estimated future rental stream would have the effect of increasing the capital value, and vice versa. However, there are interrelationships between the unobservable inputs which are influenced by market conditions, which would impact the changes in fair value.

Notes to the financial statements continued

14. Investments in subsidiaries and joint ventures

Principal subsidiaries affecting the amounts shown in the financial statements are included in the list below.

Principal subsidiaries	Country of incorporation	Proportion of all classes of issued share capital owned	Principal activities
Network Rail Infrastructure Limited	Great Britain	100 %	Operation, maintenance and renewal of the national railway infrastructure
Network Rail Insurance Limited	Guernsey	100 %	Insurance
Network Rail Holdco Limited*	Great Britain	100 %	Holding company of Network Rail Infrastructure Limited
Network Rail (High Speed) Limited	Great Britain	100 %	Holds St Pancras concession and High Speed Railway Services Agreement
Network Rail Development Limited	Great Britain	100 %	Holds 49.95 % of each of the property joint ventures Solum Regeneration Limited Partnership and Solum Regeneration Epsom Limited Partnership
Network Rail Pension Trustee Limited	Great Britain	Company limited by guarantee	Administration of defined contribution and CARE defined benefit pension schemes
Network Rail Consulting Limited	Great Britain	100 %	International rail consultancy
Network Rail Certification Body Limited	Great Britain	100 %	Conformity assessment services to the rail industry
Network Rail (VY1) Limited	Great Britain	100 %	Holds land required for works access
Network Rail (VY2) Limited	Great Britain	100 %	Holds land required for works access
Shares held by a trustee			
Network Rail Infrastructure Finance PLC	Great Britain	Intertrust Corporate Services Limited	Issuer of the Debt Issuance Programme

* Directly owned by Network Rail Limited company.

The shares in Network Rail Infrastructure Finance PLC are held by HSBC Trustee (C.I.) Limited, for charitable purposes. The sole purpose of this company is to act as a special purpose funding vehicle. The company is treated as a subsidiary for accounting purposes as proceeds from debt issuances are lent on to Network Rail Infrastructure Limited and are used to finance the activities and to refinance the existing debt of the group.

Joint ventures	Country of incorporation	Proportion of all classes of issued share capital owned	Principal activities
Solum Regeneration Epsom (GP) Limited	Great Britain	50 %	Hold 0.1 % in Solum Regeneration (Epsom) Limited Partnership
Solum Regeneration (Epsom) Limited Partnership	Great Britain	49.95 %	Property development
Innova Investment Partnership GP Limited	Great Britain	50 %	Hold 0.1 % in Innova Investment Limited Partnership
Innova Investment Limited Partnership	Great Britain	49.95 %	Property development
West Hampstead Square LLP	Great Britain	50 %	Property development
Blockwork LLP	Great Britain	50 %	Property development
The Station Office Network LLP	Great Britain	50 %	Provides flexible office space, meeting rooms and virtual offices

	2019 Group £m	2018 Group £m
At 1 April	35	33
Investment in joint ventures	9	2
Share of profit/(loss)	–	–
At 31 March	44	35

14. Investments in subsidiaries and joint ventures continued

Network Rail Development Limited is a 50% joint venture partner in:

Solum Regeneration (Haywards) LLP, Solum Regeneration (Guildford) LLP, Solum Regeneration (Twickenham) LLP, Solum Regeneration (Bishops) LLP, Solum Regeneration (Surbiton) LLP, Solum Regeneration Holding 2 LLP, Solum Regeneration (Maidstone) LLP, Solum Regeneration (Walthamstow) LLP, Solum Regeneration (Redhill) LLP, Solum Regeneration (Kingswood) LLP, Solum Regeneration Holding 1 LLP.

The objective of these joint ventures is to prepare sites for development and secure the necessary planning and railway consent.

15. Assets held for sale

In November 2017 Network Rail received clearance from Her Majesty's Government to begin marketing the sale of a substantial part of its investment property portfolio. On 24 November 2017, the assets were transferred from investment property to assets held for sale at their carrying value, as the criteria for reclassification had been met. The value at which the assets were transferred represents the valuation at this date on the measurement basis described in Note 13. Network Rail completed the sale in February 2019.

Under IFRS 13, the assets are classified as Level 3.

	2019 Group £m	2018 Group £m
At 1 April	1,134	–
Transfer (to)/from investment property	(5)	1,142
Transfer from trade and other payables	(7)	(11)
Additions	22	3
Disposals	(1,134)	-
At 31 March	10	1,134

During the financial year Network Rail disposed of a proportion of the commercial property portfolio from assets held for sale. This achieved a sales value of over £1.4bn and generated net returns above the carrying value of c£0.2bn . As at 31 March 2019, £10m relates to the remaining commercial property disposal.

16. Inventories

	2019 Group £m	2018 Group £m
Raw materials and consumables	226	215

As at 31 March 2019 a provision of £26m was held in respect of inventories (2018: £24m).

Notes to the financial statements continued

17. Trade and other receivables

Current assets: trade and other receivables	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Trade receivables				
- receivable from contracts with other customers	201	126	-	-
- receivable from agreements with government	34	114	-	-
- receivable from property portfolio customers	112	100	-	-
Capital grants receivable	270	163	-	-
Other taxation and social security	134	102	-	-
Collateral receivable	727	750	-	-
Other receivables	-	55	-	-
Prepayments	55	43	-	-
Accrued income				
- receivable from contracts with other customers	130	107	-	-
- receivable from property portfolio customers	76	35	-	-
	1,739	1,595	-	-

Trade receivables from contracts with customers, agreements with government and from the property portfolio are all based on unconditional rights to consideration, and are not contingent on conditional or dependent on satisfying other performance obligations. Trade receivables from agreements with government reflects capital grants due.

Trade receivables include an allowance for estimated irrecoverable amounts from the supply of services of £22.5m (2018: £19m). This allowance has been made by reference to past default experience. Past default experience is adjusted for forward looking information where relevant. The group provides fully for receivables overdue by over six months. Average debtor days were 47 days (2018: 55 days).

The directors consider that the carrying value of trade and other receivables approximates to their fair value. All balances are non-interest bearing and denominated in sterling.

The group's credit risk is primarily attributable to its trade receivables. Around 94 per cent of the company's income is received from train operating companies and in the form of revenue grants from Government. Franchises are issued to train operating companies by the Department for Transport in England and Wales and Transport Scotland in Scotland. The group believes that amounts receivable from Government and the train operating companies represent a high level of credit quality. This is because in the extraordinary circumstance that a train operating company were to be unable to meet its obligations then provisions in the franchise agreements allow the Department for Transport to take over services at any time. Before accepting any other new customer, the group uses an external credit scoring system to assess the potential customer's credit quality.

Included in the group's trade receivable balance are amounts totalling £40m (2018: £92m) which are past due at the reporting date for which the group has not provided as there has not been a significant change in the credit quality and the amounts are still considered recoverable. The group does not hold collateral over these balances. The average age of these receivables is 21 days (2018: 13 days).

The following table shows the age of financial assets for the group which are past due and for which no specific provision has been raised:

	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Past due by 1 – 28 days	32	79	–	–
Past due by 29 – 56 days	2	7	–	–
Past due by 57 – 84 days	3	2	–	–
Past due by 85 – 180 days	12	4	–	–
	49	92	–	–

Trade receivables of £15m (2018: £10m) are overdue by six months or more, and have been fully provided for.

18. Trade and other payables

Current liabilities: trade and other payables	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Trade payables	782	556	–	–
Collateral held from banking counterparties	38	87	–	–
Payments received on account	15	21	–	–
Other payables	359	306	–	–
Other interest accruals	287	279	–	–
Other accruals	1,434	1,180		
Deferred income				
- from contracts with other customers	414	349	–	–
- from property portfolio customers	77	62	–	–
	3,406	2,840	–	–

IFRS 15 uses the term ‘contract liability’ to describe what might more commonly be known as ‘deferred income’, however the Standard does not prohibit an entity from using alternative descriptions in the statement of financial position. The Group has not adopted the terminology used in IFRS 15 to describe such balances.

£62m of the property deferred income balance at the beginning of the year and £39m of other government grant was recognised as revenue in the current year.

The average credit period taken for trade purchases is 29 days (2018: 28 days).

Before accepting new suppliers, and upon letting significant contracts, the group evaluates suppliers’ creditworthiness using external credit scoring systems and other relevant data.

The directors consider that the carrying value of trade and other payables approximates to their fair value. All balances are ordinarily non-interest bearing and denominated in sterling.

Non-current liabilities: other payables	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Other accruals and deferred income	150	109	–	–
Other payables	176	137	–	–
	326	246	–	–

19. Borrowings

	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
Net borrowings by instrument:				
Cash and cash equivalents	450	973	–	–
Collateral placed with counterparties	727	750	–	–
Collateral received from counterparties	(38)	(87)	–	–
Bank loans	(500)	(481)	–	–
Bonds issued under the Debt Issuance Programme (less unamortised premium, discount and fees)	(24,196)	(25,702)	–	–
Borrowings issued by the Department for Transport*	(30,580)	(26,750)	–	–
	(54,137)	(51,297)	–	–
Movement in net borrowings:				
At the beginning of the year	(51,297)	(46,254)	–	–
(Decrease)/increase in cash and cash equivalents	(523)	31	–	–
Proceeds from borrowings	(6,688)	(6,713)	–	–
Repayments of borrowings	4,597	1,541	–	–
Capital accretion	(496)	(715)	–	–
Exchange differences	(8)	15	–	–
Movement in collateral placed with counterparties	(23)	125	–	–
Movement in collateral received from counterparties	49	172	–	–
Fair value and other movements	252	501	–	–
At the end of the year	(54,137)	(51,297)	–	–
Net borrowings are reconciled to the balance sheet as set out below:				
Cash and cash equivalents	450	973	–	–
Collateral placed with counterparties (included in trade and other receivables)	727	750	–	–
Collateral received from counterparties (included in trade and other payables)	(38)	(87)	–	–
Borrowings included in current liabilities	(11,557)	(4,820)	–	–
Borrowings included in non-current liabilities	(43,719)	(48,113)	–	–
	(54,137)	(51,297)	–	–

* Included within this balance is a collateral facility of £685m at 31 March 2019.

19. Borrowings continued

	2019 Group £m	2018 Group £m	2019 Company £m	2018 Company £m
1.085% sterling index linked bond due 2052	137	134	–	–
0% sterling index linked bond due 2052	149	144	–	–
1.003% sterling index linked bond due 2051	26	25	–	–
0.53% sterling index linked bond due 2051	133	129	–	–
0.517% sterling index linked bond due 2051	133	130	–	–
0% sterling index linked bond due 2051	149	144	–	–
0.678% sterling index linked bond due 2048	131	127	–	–
1.125% sterling index linked bond due 2047	5,685	5,559	–	–
0% sterling index linked bond due 2047	95	91	–	–
1.1335% sterling index linked bond due 2045	53	52	–	–
1.5646% sterling index linked bond due 2044	299	290	–	–
1.1565% sterling index linked bond due 2043	60	58	–	–
1.1795% sterling index linked bond due 2041	73	71	–	–
1.2219% sterling index linked bond due 2040	294	285	–	–
1.2025% sterling index linked bond due 2039	80	78	–	–
4.6535% sterling bond due 2038	100	100	–	–
1.375% sterling index linked bond due 2037	5,578	5,447	–	–
4.75% sterling bond due 2035	1,232	1,231	–	–
1.6492% sterling index linked bond due 2035	447	433	–	–
4.375% sterling bond due 2030	872	872	–	–
1.75% sterling index linked bond due 2027	5,435	5,328	–	–
4.615% Norwegian krone bond due 2026*	53	53	–	–
4.57% Norwegian krone bond due 2026*	15	15	–	–
1.9618% sterling index linked bond due 2025	378	366	–	–
4.75% sterling bond due 2024	742	740	–	–
3 % sterling bond due 2023	398	398		
2.76% Swiss franc bond due 2021	231	224	–	–
2.315% Japanese yen bond due 2021*	73	71	–	–
2.28% Japanese yen bond due 2021*	73	71	–	–
2.15% Japanese yen bond due 2021*	73	72	–	–
4.625% sterling bond due 2020	1,000	999	–	–
1.75 % US dollar bond due 2019**	-	717	–	–
0.875 % US dollar bond due 2018**	-	1,248	–	–
	24,197	25,702	–	–

* Bonds treated as fair value through profit and loss.
** Bonds in a fair value hedge arrangement.
All other bonds are shown net of unamortised discount and fees.

Notes to the financial statements continued

19. Borrowings continued

Bank loans are analysed as follows:

	2019 Group £m	2018 Group £m	2018 Company £m	2017 Company £m
Index-linked European Investment Bank due 2036 (£251m) and 2037 (£249m)	**500**	**484**	–	–
Barclays Bank due 2017 repayable by instalments	-	(3)	–	–
	500	**481**	–	–

At 31 March 2019 and 2018 the group had the following undrawn committed borrowing facilities at nominal value:

	2019 Drawn £m	2019 Undrawn £m	2019 Total £m	2018 Drawn £m	2018 Undrawn £m	2018 Total £m
Department for Transport loan facility	29,909	-	29,909	28,400	2,475	30,875
Department for Transport collateral facility	685	315	1,000	-	1,000	1,000
	30,594	315	30,909	28,400	3,475	31,875

Undrawn committed facilities expire as follows:

	2019 Group £m	2018 Group £m
Within one year	-	**2,475**
Within two to five years	-	–
After five years	-	–
	-	**2,475**

On 4 July 2014, the Secretary of State for Transport provided the group with a loan facility of £30,875m expiring on 31 March 2019. Following the asset divestment programme, the loan facility was reduced to £29,909m which had been fully drawn as at 31 March 2019. On 28 March 2019, a new facility was signed which became available for drawing on 1 April 2019 (the '2019 facility'). The 2019 facility has a drawdown limit of £32,329m. In addition, the Secretary of State for Transport has provided unlimited financial indemnity in respect of borrowings under the Debt Issuance Programme which expires in 2052.

20. Derivative financial instruments

	2019 Group	
	Fair value £m	Notional amounts £m
Derivative financial instrument assets		
Cash flow hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	126	128
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	-	-
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	95	199
Interest rate swaps	129	10,711
Forward foreign exchange contracts	-	3
	350	11,041
Included in non-current assets	340	9,552
Included in current assets	10	1,489
	350	11,041
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	15	130
Forward starting interest rate swaps	-	-
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	1,016	19,852
Forward foreign exchange contracts	2	48
	1,033	20,030
Included in current liabilities	52	4,975
Included in non-current liabilities	981	15,055
	1,033	20,030

See Note 25: Funding and financial risk management for further details on the risk management strategy. Notional amounts above reflect the contractual value relating to the principal instrument (e.g. bond) to which the derivative relates.

Notes to the financial statements continued

20. Derivative financial instruments continued

	2018 Group	
	Fair value £m	Notional amounts £m
Derivative financial instrument assets		
Cash flow hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	125	128
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	217	1,738
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	97	198
Interest rate swaps	57	4,531
Forward foreign exchange contracts	-	11
	496	6,606
Included in non-current assets	269	3,497
Included in current assets	227	3,109
	496	6,606
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	19	130
Forward starting interest rate swaps	242	2,695
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	905	22,590
Forward foreign exchange contracts	1	66
	1,167	25,481
Included in current liabilities	20	2,401
Included in non-current liabilities	1,147	23,080
	1,167	25,481

21. Provisions

	Legal £m	Commercial and other claims £m	Total £m
At 31 March 2018	**9**	**72**	**81**
Charge for the year	5	10	15
Utilised in the year	(4)	(14)	(18)
Release for the year	(9)	(5)	(14)
At 31 March 2019	**1**	**63**	**64**

The group has also provided against a number of claims arising from interpretations of legal contracts or past events for which settlement is expected to be achieved in the next year, but could be deferred to future years depending on the legal interpretation of rights and responsibilities under the contracts as well as commercial negotiation.

Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. The nature of these claims means that there is some uncertainty with regard to the value that they will be settled at. If the outcomes of the claims are different to the assumptions underpinning the directors' best estimates then a further liability may arise.

Contingent liability

The group's lawyers have advised that detailed disclosure regarding the nature and amount of contingent liabilities, beyond that disclosed here, could be expected to prejudice the position of the group. The general nature of contingent liabilities are development indemnities and warranties.

Notes to the financial statements continued

22. Deferred tax

The following are the deferred tax liabilities and assets recognised by the group and movement thereon during the current and prior year.

Group	Accelerated tax depreciation £m	Unrealised Gain on Investment Property £m	Revaluation of railway network £m	Short-term timing differences including retirement benefit obligations £m	Derivatives £m	Tax losses £m	Total £m
At 31 March 2017	**2,411**	-	**46**	**(51)**	**(21)**	-	**2,385**
Charge/(credit) to income	10	-	-	(38)	(1)	25	(4)
Charge/(credit) to other comprehensive income	-	-	115	37	31	-	183
Transfer between reserves	-	-	1	(1)	-	-	-
Utilisation of losses previously derecognised	-	-	-	-	-	(2)	(2)
Derecognition of deferred tax asset (income)	-	-	-	-	-	(23)	(23)
Derecognition of deferred tax asset (equity)	-	-	-	-	(31)	-	(31)
At 31 March 2018	**2,421**	-	**162**	**(53)**	**(22)**	-	**2,508**
Charge/(credit) to income	165	(98)	-	(48)	(6)	(1)	12
Charge/(credit) to other comprehensive income	-	-	447	(4)	29	-	472
Transfer between reserves	-	-	(13)	13	-	-	-
Reclassification	(58)	58	-	-	-	-	-
Utilisation of losses previously derecognised	-	-	-	-	-	1	1
Derecognition of deferred tax asset (income)	-	40	-	-	-	-	40
Derecognition of deferred tax asset (equity)	-	-	-	-	(29)	-	(29)
At 31 March 2019	**2,528**	**-**	**596**	**(92)**	**(28)**	**-**	**3,004**

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the gross deferred tax balances:

	2019 (£m	2018 (£m
Deferred tax liabilities	**3,124**	**2,583**
Deferred tax assets	**(120)**	**(75)**
	3,004	**2,508**

Under IAS 12 deferred tax assets can only be recognised where it is probable that taxable profits will be available against which the deferred tax asset can be utilised. Additionally, whilst taxable income does not exceed allowable deductions in the year, Network Rail claims only the capital allowances sufficient to make the necessary claims for group relief and available tax credits.

During the year, a deferred tax asset in respect of current year losses on derivatives of £29m has been derecognised as well as £40m of unrecognised deferred tax asset on investment property.

23. Notes to the statement of cash flows

	2019 Group £m	2018 Group £m	2019 Group £m	2018 Company £m
(Loss)/ Profit before tax	(173)	48	–	–
Adjustments for:				
Property revaluation movements and profits on disposal	(363)	(190)	–	–
Fair value gain on derivatives and debt	(220)	(234)	–	–
Net interest expense	2,189	2,225	–	–
Depreciation of the rail network	1,810	1,638	–	–
Amortisation of grants	(144)	(99)	–	–
Amortisation of intangible assets	1	1	–	–
Movement in retirement benefit obligations	169	164	–	–
(Decrease) / increase in provisions	(17)	17	–	–
Operating cash flows before movements in working capital	3,252	3,570	–	–
Increase in inventories	(11)	(24)	–	–
(Increase)/Decrease in receivables	(167)	28	–	–
Increase / (decrease) in payables	548	(25)	–	–
Cash generated from operations	3,622	3,549	–	–

Cash and cash equivalents

Cash and cash equivalents (which are represented as a single class of assets on the face of the balance sheet) comprise cash at bank, collateral and commercial paper, all of which are on call with the exception of short-term deposits. There were £502m (excluding offsetting clearing accounts) of short term deposits of which £14m is with BlackRock, and the remainder with the government banking scheme (“GBS”) held as at 31 March 2019.

Notes to the financial statements continued

24. Operating lease arrangements

The group as lessee	2019 Group £m	2018 Group £m
Minimum lease payments under operating leases recognised in the income statement in the year	44	40

At the balance sheet date, the group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2019 Group £m	2018 Group £m
Within one year	58	33
In the second to fifth years inclusive	157	98
After five years	104	121
	319	252

Operating lease payments largely represent rentals payable by the group for certain of its office properties. Leases are negotiated for an average term of seven years and rentals fixed for an average of three years. In addition rentals are paid for land adjacent to the railway required for maintenance and renewal activities.

The group as lessor

Operating lease rentals earned in the year by the group were £732m (2018: £674m). This amount includes property rental income of £317m (2018: £306m), as disclosed in Note 3.

At the balance sheet date, the group had contracted with customers for the following future minimum lease payments:

	2019 Group £m	2018 Group £m
Within one year	470	444
In the second to fifth years inclusive	1,316	1,213
After five years	2,142	2,335
	3,928	3,992

25. Funding and financial risk management

Introduction

The group is almost entirely debt financed. Debt has been issued through the special purpose financing company Network Rail Infrastructure Finance PLC, which is not a member of the Network Rail Limited group, but is treated as a subsidiary for accounting purposes. The majority of the group's existing debt has been issued by Network Rail Infrastructure Finance PLC under the Debt Issuance Programme which is rated AA by Standard and Poor's, Aa2 (outlook stable) by Moody's and AA (outlook negative) by Fitch. The Debt Issuance Programme is supported by a financial indemnity from the Secretary of State for Transport which expires in 2052.

Debt has been issued in a number of currencies and a range of maturities which gives rise to interest rate, foreign currency and inflation risk. Financial risk management aims to mitigate these risks.

Reclassification of Network Rail

In December 2013, the Office for National Statistics announced the reclassification of Network Rail as a Central Government Body in the UK National Accounts and Public Sector Finances with effect from 1 September 2014. This is a statistical change driven by guidance in the European System of National Accounts 2010 (ESA10).

As part of Network Rail's formal reclassification to the public sector, an arrangement was agreed whereby funding would be provided by the DfT in the form of a loan made directly to Network Rail Infrastructure Limited, to fund the continuing programme of long-term investment in the national rail network. Network Rail Infrastructure Finance PLC does not anticipate issuing further bonds in the foreseeable future and its debt service obligations would be met through repayments of the intercompany loan by Network Rail Infrastructure Limited.

All of the outstanding bonds under the Debt Issuance Programme, including nominal and index-linked benchmarks and private placements in all currencies, will continue to benefit from the direct and explicit guarantee from the UK Government under the Financial Indemnity Mechanism. In the unlikely event that the DfT withdraws or breaches its obligations on the loan facility to Network Rail the group may issue further bonds or commercial paper to meet funding requirements.

Externally imposed capital requirements

The Network Rail group is almost entirely debt financed and therefore manages its debt as the key part of its capital. Network Rail manages its debt in relation to the Regulatory Asset Base (RAB). This is an important business ratio because the value of the RAB and the amount of debt that the business can sustain are, generally speaking, closely related. Network Rail's debt cannot exceed the value of the RAB; a debt to RAB ratio of significantly less than 100 per cent indicates that the business is more robust to future cost shocks without endangering its sustainability as an arms length body of central government.

The RAB and regulatory debt are reconciled to property, plant and equipment (in Note 12) and net debt (in Note 19) as follows:

	2019 £m	2018 £m
Net debt per Note 19	(54,137)	(51,297)
Revaluations and remeasurements	693	939
Regulatory net debt	(53,444)	(50,358)

The RAB used to calculate the debt to RAB ratio is:

	2019 £m	2018 £m
Rail network per Note 12	71,467	64,142
Investment properties per Note 13	232	206
Other fair value adjustments	319	2,444
RAB	72,018	66,792

The debt to RAB ratio at 31 March 2019 and 2018 was as follows:

	2019	2018
Debt: RAB ratio	74.2%	75.4%

The debt to RAB ratio is based on regulatory net debt, which recognises debt at hedged rates.

The group's subsidiary, Network Rail Infrastructure Limited, owns and operates Britain's rail network under licence from the ORR. The licence imposes conditions on the company with regard to its net debt. Should the value of the company's qualifying net debt exceed 75 per cent of the ORR's RAB then the ORR will be formally notified. In the prior year Network Rail received consent from the ORR to exceed the financial indebtedness Debt:RAB ratio.

25. Funding and financial risk management continued

Summary table of financial assets and liabilities

The following table presents the carrying amounts and the fair values of the group's financial assets and liabilities at 31 March 2019 and 31 March 2018.

The fair values of the financial assets and liabilities are recorded at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values where balances were not already held at fair value:

- Bank loans – based on market data at the balance sheet date and the net present value of discounted cash flows
- Certain bonds issued under the Debt Issuance Programme – based on market data at the balance sheet date. Where market data is not available valuations have been obtained from dealing banks.

For cash and cash equivalents, finance lease receivables, trade and other payables and trade and other receivables, fair value equates to carrying value.

Group	2019 Carrying value £m	2019 Fair value £m	2018 Carrying value £m	2018 Fair value £m
Financial assets				
Cash and cash equivalents	**450**	**450**	**973**	**973**
Other non-derivative financial assets				
Trade and other receivables (less prepayments, accrued income and other taxation and social security)	**617**	**617**	**546**	**546**
Collateral receivable	**727**	**727**	**750**	**750**
Derivatives				
Derivatives designated as cash flow hedging instruments	**126**	**126**	**125**	**125**
Derivatives designated as fair value hedging instruments	**-**	**-**	**217**	**217**
Other derivatives as fair value through profit and loss	**224**	**224**	**154**	**154**
Total financial assets	**2,144**	**2,144**	**2,765**	**2,765**
Financial liabilities				
Financial liabilities held at amortised cost				
Bank loans	**(500)**	**(853)**	**(481)**	**(811)**
Bonds issued under the Debt Issuance Programme	**(23,909)**	**(29,518)**	**(25,419)**	**(30,617)**
Borrowings issued by Department for Transport	**(30,580)**	**(30,523)**	**(26,750)**	**(26,245)**
Collateral payable	**(38)**	**(38)**	**(87)**	**(87)**
Trade and other payables at amortised cost (less deferred income)	**(3,091)**	**(3,091)**	**(2,754)**	**(2,754)**
Financial liabilities designated as fair value through profit and loss				
Bonds issued under the Debt Issuance Programme	**(287)**	**(287)**	**(283)**	**(283)**
Derivatives				
Derivatives designated as cash flow hedging instruments	**(15)**	**(15)**	**(261)**	**(261)**
Other derivatives as fair value through profit and loss	**(1,018)**	**(1,018)**	**(906)**	**(906)**
Total financial liabilities	**(59,438)**	**(65,343)**	**(56,941)**	**(61,964)**

As shown in the above table, the bonds issued under the Debt Issuance Programme have fair values significantly in excess of their carrying values. These differences are not reflected in the Balance Sheet since the majority of these instruments (See Note 19) were not designated at FVPL on initial recognition and hence are accounted for at amortised cost under IFRS 9. The size of the difference is driven by the overall decrease in market debt yield rates since the inception of these instruments; debt terms in a higher yield environment resulting in a settlement at par would now attract a premium, assuming no other changes to the instrument or wider environment.

25. Funding and financial risk management continued

Derivatives

The group (including the group's special purpose financing company, Network Rail Infrastructure Finance PLC) uses derivative financial instruments to reduce exposure to foreign exchange risk and interest rate movements. The group does not use derivative financial instruments for speculative purposes. Certain derivatives are designated as hedges, and those derivatives that are not hedge accounted are fair valued immediately through the income statement. The group has a comprehensive risk management process.

The board, through a treasury sub-committee (the treasury committee), has approved and monitors the risk management processes, including documented treasury policies, counterparty limits, controlling and reporting structures.

The use of derivative instruments can give rise to credit and market risk. Market risk is the possibility that future changes in foreign exchange rates and interest rates may make a derivative more or less valuable. Since the group uses derivatives for risk management, market risk relating to derivative instruments will principally be offset by changes in the valuation of the underlying assets, liabilities or transactions being hedged.

Credit risk

Network Rail manages its funds with banks that have high credit ratings; assigned by international credit-rating agencies. The treasury committee authorises the policy for setting counterparty limits based on credit ratings. The group spreads its exposure over a number of counterparties and has strict policies on how much exposure can be assigned to each of the counterparties. Surplus liquidity is invested in the Government Banking Scheme which has low credit risk.

For debt designated as fair value through profit and loss (FVTPL) there has been no change in carrying value as a result of changes in the group's credit risk. The gain in the income statement arising from the remeasurement of FVTPL debt items of £3m (2018: £21m loss) are all attributable to changes in market risk.

The credit risk with regard to all classes of derivative financial instruments entered into before 1 January 2013 is limited because Network Rail has arrangements in place which limit each bank to a threshold (based on credit ratings), which if breached requires the bank to post collateral in cash or eligible securities. The members of the banking group are required to post collateral on positive mark to market swaps above the threshold. In December 2012 the group entered into new collateral agreements in respect of derivative trades entered into after 1 January 2013. Under the terms of the new agreements Network Rail posts collateral on adverse net derivative positions with its counterparties. The new agreements do not contain a provision for thresholds; as such Network Rail or its counterparties are required to post collateral for the full fair value of net out of the money positions. At 31 March 2019 the fair value of collateral held was £38m (2018: £87m). The group is the beneficial owner of this collateral. The group is free to invest or otherwise utilise the collateral at its discretion, subject to acting within the authority sanctioned by the treasury committee. The balance of collateral posted by the group at 31 March 2019 was £727m (2018: £750m).

The group does not have any significant credit risk exposure to any single counterparty and has considered the creditworthiness of debtors. For further detail on the credit-worthiness of customers and suppliers, see Notes 17 (Trade and other receivables) and 18 (Trade and other payables).

The group considers its maximum exposure to credit risk to be the sum of its financial assets, as set out on page 173.

Foreign exchange risk

Network Rail is exposed to currency risks from its investing, financing and operating activities. Foreign exchange risk for all currencies is managed by the use of forward exchange contracts and currency swaps to limit the effects of movements in exchange rates on foreign currency denominated liabilities.

It is estimated that a general increase of ten percentage points in the value of any currency against sterling would have no material effect on the group's profit before tax or equity due to all currency positions being 100 per cent hedged and therefore no sensitivity analysis is produced.

Notes to the financial statements continued

25. Funding and financial risk management continued

Interest rate and inflation risk

The group is exposed to changes in interest rates as funds are borrowed at both fixed and floating interest rates. The hedging strategy approved by the treasury committee defines the appropriate mix between fixed and floating borrowings. Cross-currency and interest rate swap contracts are used to manage the fixed/floating ratio.

Debt with a carrying value of £30,592m (2018: £18,885m) is arranged at or swapped into fixed interest rates and exposes the group to fair value interest rate risk. Other borrowings were arranged at or swapped into floating rates, thus exposing the group to cash flow interest rate risk. They have arranged or swapped other borrowings into floating rates (£198m), thus exposing the group to cash flow interest rate risk.

Network Rail has no more forward starting interest rate swaps. These were used to hedge the interest rate on borrowings for CP5. The fair value movement on these swaps during the year before they were utilised were £39m (2018: £41m).

The group has certain debt issuances which are index-linked and so are exposed to movements in inflation rates. The group does not enter into any derivative arrangements to hedge its exposure to inflation in relation to its index-linked debt, but rather to mitigate the effects of inflation on the group's retail price index-linked revenue streams.

Sensitivity analysis

This sensitivity analysis has been determined based on the exposure to interest rates and inflation for both derivative and non-derivative financial instruments at the balance sheet date. A one per cent increase or decrease represents management's assessment of the reasonably possible changes in average interest rates and inflation.

	Group 31 March 2019		Group 31 March 2018	
	Impact on the income statement £m	Impact on equity £m	Impact on the income statement £m	Impact on equity £m
1 % increase in the interest rate	**504**	**-**	341	(20)
1 % increase in the GBP RPI on index linked bonds	**(182)**	-	(179)	–

A one per cent decrease in the above rates would have an equal and opposite effect.

Interest rate sensitivities have been calculated by comparing the average rates of the derivative financial instruments to the market rate for similar instruments.

The impact of a change in GBP RPI has been calculated by applying a change of one per cent to the RPI at the balance sheet date to the carrying value of the index linked bonds.

The group believes that the above analysis is unrepresentative of the risks inherent in issuing index-linked debt. Franchised track access and grant income constitute £6,268m (2018: £6,187m) of revenue which is far in excess of an index-linked interest expense of £257m (2018: £243m). Currently, these sources of income are contractually index-linked and, whilst there is no absolute contractual guarantee for future regulatory control periods that this will continue, the group is highly confident that this will continue to be the case. Therefore, the natural hedge that exists between finance costs and revenue mitigates the risk of RPI movements.

25. Funding and financial risk management continued

Liquidity risk management

The ultimate responsibility for liquidity risk management rests with the board of directors. The policy manual ratified by the treasury committee includes an appropriate liquidity risk management framework covering the group's short, medium and long-term funding and liquidity management requirements. The Treasury funding is subject to regular internal audits. Treasury provides sufficient liquidity to meet the group's needs, while reducing financial risks and prudently maximising interest receivable and minimising credit risk on surplus cash.

The group manages liquidity risk by maintaining sufficient cash and facilities to cover at least one year's working capital requirement by continuously monitoring forecast and actual cash flows. Included in Note 19 is a description of additional undrawn facilities that the group has at its disposal to further reduce liquidity risk.

The following table details the group's remaining contractual maturity for its financial liabilities. The table has been drawn up on the undiscounted cash flows of financial liabilities based on the earliest date on which the group can be required to pay and, therefore, differs from both the carrying value and the fair value. The table includes both interest and principal cash flows.

Group	Within 1 year £m	1-2 years £m	2-5 years £m	5+ years £m	Total £m
31 March 2019					
Non-derivative financial liabilities					
Bank loans and overdrafts	(6)	(6)	(18)	(582)	(612)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(196)	(1,196)	(1,600)	(3,273)	(6,265)
– Sterling denominated index-linked bonds	(268)	(276)	(852)	(40,993)	(42,389)
– Foreign currency denominated bonds	(14)	(14)	(459)	(65)	(552)
Loan from the Department for Transport	(9,592)	(8,163)	(10,741)	(3,218)	(31,714)
Trade and other payables	(1,466)	(175)	-	-	(1,641)
Derivative financial liabilities					
Net settled derivative contracts	(231)	(137)	(247)	(44)	(659)
Gross settled derivative contracts – receipts	14	14	459	65	552
Gross settled derivative contracts – payments	(3)	(6)	(278)	(60)	(347)
	(11,762)	(9,959)	(13,736)	(48,170)	(83,627)

Group	Within 1 year £m	1-2 years £m	2-5 years £m	5+ years £m	Total £m
31 March 2018					
Non-derivative financial liabilities					
Bank loans and overdrafts	(5)	(5)	(14)	(483)	(507)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(196)	(196)	(1,496)	(4,573)	(6,461)
– Sterling denominated index-linked bonds	(256)	(264)	(839)	(38,849)	(40,208)
– Foreign currency denominated bonds	(1,993)	(13)	(454)	(69)	(2,529)
Loan from the Department for Transport	(3,007)	(10,605)	(11,024)	(4,041)	(28,677)
Trade and other payables	(1,228)	(137)	-	-	(1,365)
Derivative financial liabilities					
Net settled derivative contracts	(191)	(177)	(372)	(104)	(844)
Gross settled derivative contracts – receipts	1,993	13	454	69	2,529
Gross settled derivative contracts – payments	(1,757)	(5)	(282)	(61)	(2,105)
	(6,640)	(11,389)	(14,027)	(48,111)	(80,167)

25. Funding and financial risk management continued

Offsetting financial assets and liabilities

Financial assets

The following financial assets are subject to offsetting, enforceable master netting arrangements and similar agreements. The balances have not been presented on a net basis in the financial statements.

				Related amounts not set off in the balance sheet		
Group	Gross amounts of recognised financial assets £m	Gross amounts of recognised financial liabilities set off in the balance sheet £m	Net amount of financial assets presented in the balance sheet £m	Financial instruments £m	Cash collateral received £m	**Net amount £m**
31 March 2019						
Derivative financial assets	350	-	350	(307)	413	**456**

				Related amounts not set off in the balance sheet		
Group	Gross amounts of recognised financial assets £m	Gross amounts of recognised financial liabilities set off in the balance sheet £m	Net amount of financial assets presented in the balance sheet £m	Financial instruments £m	Cash collateral received £m	**Net amount £m**
31 March 2018						
Derivative financial assets	496	-	496	(406)	123	**213**

Financial liabilities

The following financial liabilities are subject to offsetting, enforceable master netting arrangements and similar agreements. The balances have not been presented on a net basis in the financial statements.

				Related amounts not set off in the balance sheet		
Group	Gross amounts of recognised financial liabilities £m	Gross amounts of recognised financial assets set off in the balance sheet £m	Net amount of financial liabilities presented in the balance sheet £m	Financial instruments £m	Cash collateral paid £m	**Net amount £m**
31 March 2019						
Derivative financial liabilities	(1,033)	-	(1,033)	307	276	**(450)**

				Related amounts not set off in the balance sheet		
Group	Gross amounts of recognised financial liabilities £m	Gross amounts of recognised financial assets set off in the balance sheet £m	Net amount of financial liabilities presented in the balance sheet £m	Financial instruments £m	Cash collateral paid £m	**Net amount £m**
31 March 2018						
Derivative financial liabilities	(1,167)	-	(1,167)	406	540	**(221)**

Cash flow hedges

Contractual payments on derivatives designated as cash flow hedges impact the income statement and will all have matured by 2027.

Borrowings

Details of the group's undrawn committed facilities and types of debt instrument used can be found in Note 19.

25. Funding and financial risk management continued

Fair value measurements recognised in the balance sheets

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	2019			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Derivative financial assets	-	350	-	350
Assets	-	350	-	350
Derivative financial liabilities	-	(1,033)	-	(1,033)
Financial liabilities designated at fair value through profit and loss	(287)	-	-	(287)
Liabilities	(287)	(1,033)	-	(1,320)
Total	(287)	(683)	-	(970)

	2018			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Derivative financial assets	-	496	-	496
Assets	-	496		496
Derivative financial liabilities	-	(1,167)	-	(1,167)
Financial liabilities designated at fair value through profit and loss	(283)	-	-	(283)
Liabilities	(283)	(1,167)	-	(1,450)
Total	(283)	(671)	-	(954)

The fair value of level 2 derivatives is estimated by discounting the future contractual cash flows using appropriate yield curves based on quoted market rates as at the current financial year end.

A review of the categorisation of the assets and liabilities into the three levels is made at each reporting date. There were no transfers between Level 1 and Level 2 fair value measurements and no transfers into or out of Level 3 fair value measurements in the current or prior years.

Notes to the financial statements continued

26. Retirement benefit schemes

Defined contribution schemes

On 1 April 2004 the group introduced a defined contribution pension scheme, the Network Rail Defined Contribution Pension Scheme (NRDCPS). This is an auto-enrolment scheme for all new employees of Network Rail, except those who have the legal right to join the Railway Pension Scheme (RPS), in compliance with regulations made under the Pensions Act 2008. Any employee who wishes to transfer from the Network Rail Section of the RPS to the NRDCPS is entitled to do so.

At 31 March 2019, the NRDCPS had 13,135 members (2018: 12,170) and the average employer contribution rate in the year was 4.2 per cent (2018: 4.3 per cent).

Defined benefit schemes

The principal pension scheme in which the group participates is the Railway Pension Scheme (RPS), which was established by statutory instrument, commenced on 1 October 1994 and is a funded defined benefit arrangement. The assets and liabilities under the predecessor scheme, the British Rail Pension Scheme (BRPS), were transferred to the RPS on that date. The RPS is an industry-wide scheme for all eligible employees within the railway industry. There are different sections within it for different employers. The assets and liabilities of each section are identified separately from those of the other sections. The group has its own section, the Network Rail Shared Cost Section (the Network Rail Section). This scheme, the assets of which are held separately from the group, is contributory and provides pensions related to pay at retirement.

The assets transferred to the RPS from the BRPS on 1 October 1994 were apportioned among the various sections of the RPS in accordance with the methods and assumptions specified in The Railways Pensions (Transfer and Miscellaneous Provisions) Order 1994 (the 'Transfer Order') which effected the transfer. The amount credited to the Network Rail Section included a share of the surplus at that time.

Since 1 April 2004, new members can only join the Network Rail Section of the RPS after completing five years of service. Benefits for existing members and employees joining up to and including 31 March 2004 were not affected by the revised eligibility rules of the Network Rail Section. In addition, the group announced its decision to cap its contribution to British Railways Additional Superannuation Scheme (BRASS) matching at current levels for existing employees and to dispense with matching for new employees. The group will continue to match regular contributions but will not increase them in cash terms in the future. On 1 November 2008 Network Rail launched a third pension scheme – the Career Average Revalued Earnings (CARE) scheme, which is available to all employees.

Qualified actuaries Willis Towers Watson have valued the schemes on an IAS 19 (revised) basis at 31 March 2019 and 31 March 2018.

The contributions required to fund the RPS and the CARE scheme are reassessed every three years, following completion of actuarial valuations (by the Scheme Actuaries). The last full actuarial valuation of both schemes was undertaken by the scheme actuary, Willis Towers Watson, as at 31st December 2016.

Under the terms of the Pensions Act 2004, the Trustee and each employer must agree the methods and assumptions used to calculate the 'Technical Provisions', i.e. assets required to meet the Section's liabilities. The assumptions agreed are typically weaker than those used for IAS 19 purposes in current market conditions, so the minimum funding requirement in itself requires no further adjustment to the IAS 19 obligations below. However, the regulatory regime may, depending on legal advice received at the appropriate time, mean that a future employer's accounting surplus would need to be restricted.

The RPS and CARE schemes are both shared cost in nature, so the cost of benefits being earned and the cost of funding any shortfall in the schemes are normally split in the proportion 60:40 between the group and the members. In practice the contributions are adjusted at each triennial valuation to reflect the funding position of the schemes at that time.

The estimated amounts of contributions expected to be paid by the group and members to the schemes during the year ending 31 March 2020 are £120m and £78m respectively. If a surplus or deficit arises, the provisions in the rules mean that the group and members benefit from or pay for this respectively in the proportion 60:40.

26. Retirement benefit schemes continued

	2019 %	2018 %
Key assumptions used:		
Discount rate	2.3	2.4
Expected rate of price inflation and CARE benefit increases (RPI measure)	3.2	3.1
Future earnings increases*		
- after changes to benefits from 1 April 2016	3.2	3.1
Pension increases (CPI measure)	2.2	2.1

* Excluding promotional salary scale. Promotional salary scale increases apply only in respect of service after the date of promotion.
** 2.9% p.a. for non-Protected members, 3.4% p.a. for Protected members

	2019		2018	
	Males	Females	Males	Females
Average life expectancy for mortality tables used to determine defined benefit obligations:				
– Member aged 65	22.2	23.8	22.1	23.7
– Member aged 45	23.9	25.7	23.8	25.6

For the Network Rail Section of the RPS the discounted mean term of the Defined Benefit obligation is 22 years, for the CARE scheme it is 33 years.

Amounts recognised in income in respect of the group's pension arrangements are as follows:

	2019 £m	2018 £m
Current service cost – defined benefit	277	271
Past service cost - defined benefit (see Note 6)	7	-
Interest cost	55	57
	339	328

The current service cost has been included in employee costs, the net interest scheme deficit has been included in finance costs.

Amounts recognised in the statements of comprehensive income in respect of the group's pension arrangement are as follows:

	2019 £m	2018 £m
Gain on defined benefit obligation due to experience	(46)	(31)
Loss/ (gain) on defined benefit obligation due to assumption changes	285	(132)
Return on plan assets greater than discount rate	(208)	(58)
Actuarial loss / (gain) on defined benefit pension scheme	**31**	**(221)**

The cumulative amount of actuarial losses recognised in other comprehensive income was £1,519m (2018: £1,488m).

The amount included in the balance sheet arising from the group's obligations in respect of its defined benefit schemes is as follows:

	2019 £m	2018 £m
The defined benefit obligation is made up as follows:		
Active members	(6,253)	(5,827)
Deferred pensioner member	(1,455)	(1,281)
Retired members	(3,480)	(3,200)
Present value of defined benefit obligation	(11,188)	(10,308)
Fair value of scheme assets	6,912	6,457
Deficit in the scheme	**(4,276)**	**(3,851)**
Group's share (60%) of the scheme deficit recognised in the balance sheet	**(2,566)**	**(2,311)**

This amount is presented as a non-current liability in the balance sheet. Cumulative gains or losses are recognised in equity.

Notes to the financial statements continued

26. Retirement benefit schemes continued

Movements in defined benefit plan assets and liabilities (including members' share):

	Asset* £m	Liabilities** £m	Deficit £m
At 31 March 2017	6,231	(10,083)	(3,852)
Current service cost including members' share	-	(440)	(440)
Interest on pension deficit	156	(249)	(93)
Administration expenses	(11)	-	(11)
Return on plan assets greater than the discount rate	97	-	97
Actuarial gain arising from experience adjustments	-	52	52
Actuarial loss arising from demographic assumptions	-	219	219
Regular contributions by employer	107	-	107
Contributions by employees	70	-	70
Benefits paid	(193)	193	-
At 31 March 2018	6,457	(10,308)	(3,851)
Current service cost including members' share	-	(445)	(445)
Interest on pension deficit	154	(245)	(91)
Section amendment (Past Service Costs)	-	(11)	(11)
Administration expenses	(13)	-	(13)
Return on plan assets greater than the discount rate	346	-	346
Actuarial gain arising from experience adjustments	-	81	81
Actuarial loss arising from demographic assumptions	-	-	-
Loss on DBO - financial assumption		(476)	(476)
Regular contributions by employer	112	-	112
Contributions by employees	72	-	72
Benefits paid	(216)	216	-
At 31 March 2019	6,912	(11,188)	(4,276)

*Including CARE scheme assets at 31 March 2019 of £250m (2018: £214m)
**Including CARE scheme liabilities at 31 March 2019 of £595m (2018: £476m)

The actual return on scheme assets was £500m (2018: £253m).

Expected future benefit payments from the Network Rail Section, based on data from the 2013 formal valuation and the 31 March 2019 IAS19 assumptions are as follows:

	£m
Benefits expected to be paid within 12 months	199
Benefits expected to be paid between 2 to 3 years	440
Benefits expected to be paid between 4 to 6 years	766
Benefits expected to be paid between 7 to 10 years	1,228
Benefits expected to be paid between 11 to 15 years	1,832
Benefits expected to be paid in over 15 years	12,023

26. Retirement benefit schemes continued

The analysis of the scheme assets and the expected rate of return at the balance sheet date was as follows:

	Fair value of assets		Percentage of assets	
	2019 £m	2018 £m	2019 %	2018 %
Equity instruments	6,116	5,714	88.48	88.49
Debt instruments – Government	531	472	7.68	7.31
Debt instruments – non-Government	233	265	3.37	4.10
Property	8	6	0.12	0.10
Other	24	-	0.35	-
	6,912	6,457		

The group is exposed to a number of risks relating to the scheme including assumptions not being borne out in practice. The most significant risks are as follows:

Asset volatility

There is a risk that a fall in asset values is not matched by a corresponding reduction in the value placed on the defined benefit obligation scheme (DBO). The scheme holds a proportion of growth assets, which are expected to outperform corporate or government bond yields in the long term, but gives exposure to volatility and risk in the short-term.

Change in bond yields

A decrease in corporate bond yields will increase the value placed on the scheme defined benefit obligation, although this will be partially offset by an increase in the value of the scheme's corporate bond holdings.

Inflation risk

The majority of the scheme's DBO is linked to inflation where higher inflation will lead to higher value being placed on the DBO. Some of the scheme assets are either unaffected by inflation or loosely correlated with inflation (e.g. growth assets), meaning that an increase in inflation will generally increase the deficit.

Life expectancy

An increase in life expectancy will lead to an increased value being placed on the scheme's DBO. Future mortality rates cannot be predicted with certainty.

Actuarial assumption sensitivity

The discount rate is set by reference to market conditions at the reporting date, and can vary significantly between periods.

The earnings increases are linked to inflation and so set by reference to market conditions at the reporting date.

The mortality assumptions used are set by considering the experience of the scheme's members, and by making an allowance for possible future improvements in longevity. Mortality assumptions are difficult to set accurately, and forecasting rates of future mortality improvement is inevitably speculative.

The following table shows the effect of changes in these assumptions upon the defined benefit obligation:

	2019 £m	2018 £m
Discount rate		
Change in defined benefit obligation at year end from a 25 basis points increase	651	(529)
Change in defined benefit obligation at year end from a 25 basis points decrease	(603)	571
Mortality		
Change in defined benefit obligation from a one year increase in longevity	332	287
Change in defined benefit obligation from a one year decrease in longevity	(329)	(278)
Earnings increase		
Change in defined benefit obligation at year end from a 25 basis points increase	172	164
Change in defined benefit obligation at year end from a 25 basis points decrease	(166)	(159)
Price inflation (CPI measure)*		
Change in defined benefit obligation at year end from a 25 basis points increase	619	541
Change in defined benefit obligation at year end from a 25 basis points decrease	(576)	(505)

* Including consistent increases to Retail Price Index, salary growth and Retail Price Index/ Consumer Price Index related pensions assumptions.

27. Related parties

The Department for Transport (DfT) and Transport Scotland (TS) are considered related parties of Network Rail. Network Rail received grant income of £3,786m from the DfT in the year ended 31 March 2019 (2018: £4,055m). Network Rail received grant income of £339m from TS for the year ended 31 March 2019 (2018: £425m). The total of this income is "Grant income" in Note 3. The group also paid the DfT £265m (2018: £281m) in respect of the Financial Indemnity Mechanism fee (see note 25 for more details). At 31 March 2019 the company held £30,580m of loans issued by DfT (2018: £26,750m).

The British Transport Police (BTP), with whom Network Rail has a Police Service Agreement is also a related party. Network Rail incurred £91m (2018: £93m) of costs relating to services provided by the BTP in the year ending 31 March 2019 and received £1m (2018: £1m) in property income from the BTP in the same period.

Network Rail is also a related party of High Speed 2 (HS2). At the end of the financial year Network Rail held £38m (2018: £73m) of capital work in progress relating to works on HS2 and had also received £63m (2018: £50m) of capital grants that was recorded against property, plant and equipment.